U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-253 783

ORD PUBLICATIONS SUMMARY

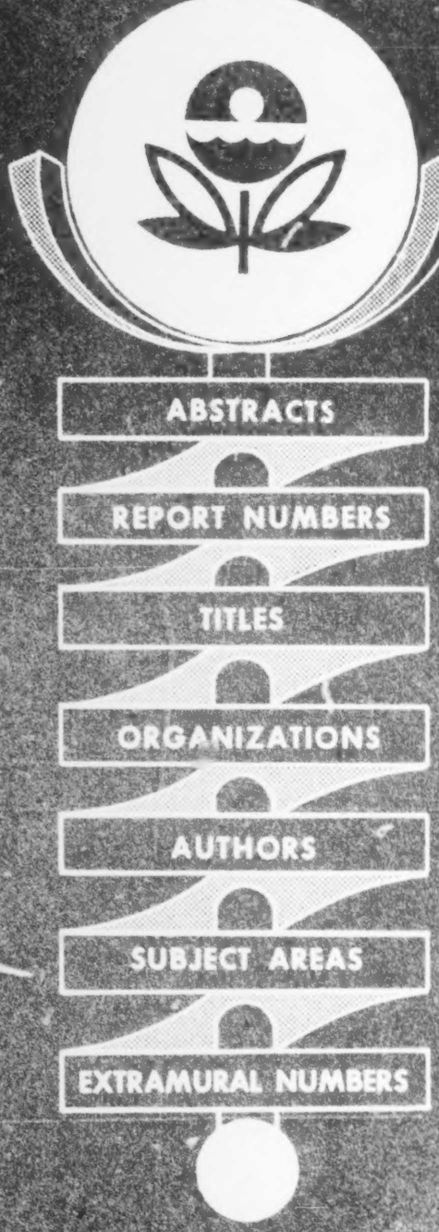
ENVIRONMENTAL PROTECTION AGENCY

MARCH 1976

176045

EPA-600/9-76-013a

PB 253 783



ABSTRACTS

REPORT NUMBERS

TITLES

ORGANIZATIONS

AUTHORS

SUBJECT AREAS

EXTRAMURAL NUMBERS

ORD PUBLICATIONS SUMMARY

MARCH 1976

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Research and Development
Cincinnati, Ohio 45268

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO. EPA-600/9-76-013a	2.	3. RECIPIENT'S ACCESSION NO. PB253783

4. TITLE AND SUBTITLE ORD PUBLICATIONS SUMMARY - March 1976	5. REPORT DATE March 1976 6. PERFORMING ORGANIZATION CODE EPA/ORD
7. AUTHOR(S) Technical Information Staff	8. PERFORMING ORGANIZATION REPORT NO. EPA-600/9-76-013a
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Environmental Protection Agency Office of Research and Development Cincinnati, OH 45268	10. PROGRAM ELEMENT NO. 1RW103 11. CONTRACT/GRANT NO. In-house
12. SPONSORING AGENCY NAME AND ADDRESS (Same as Above)	13. TYPE OF REPORT AND PERIOD COVERED Publications Summary 1973-1976 14. SPONSORING AGENCY CODE EPA-ORD

15. SUPPLEMENTARY NOTES

16. ABSTRACT

This summary is a current listing of the Office of Research & Development's final reports on in-house, grant, contract, and interagency projects. Reports are indexed by Title, Subject Area, Performing Organization, Personal Author, Report Number, and Grant, Contract, or Interagency Agreement Number to aid the reader in identifying reports of interest. Instructions on how to order copies of reports are on the inside of the front cover.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Summary Technical reports Research projects Corporate authors Information retrieval Library Science Bibliography		05B

18. DISTRIBUTION STATEMENT Available to the Public	19. SECURITY CLASS *(This Report)* Unclassified	21. NO. OF PAGES 244
	20. SECURITY CLASS *(This page)*	22. PRICE 8.00-2.25

EPA Form 2220-1 (9-73)

☆ U. S. GOVERNMENT PRINTING OFFICE: 1976-657-695/5435 Region No. 5-11

EPA-600/9-76-013a
March 1976

ORD PUBLICATIONS SUMMARY

by

TECHNICAL INFORMATION STAFF

U.S. Environmental Protection Agency
Office of Research and Development
Cincinnati, Ohio 45268

1a

HOW TO ORDER

DO NOT ORDER FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY

After each bibliographic entry, one or a combination of several of the following source notations is given. (When several sources are given, any one may be used.)

ORDER FROM:	**GPO** EP1.23:1-600/5-74-002 $0.70 **GPO** $1.25 **NTIS-PB** 211 193 **NTIS-PB** 230 175 $3.00 At Printer, Pending, PB No. Pending, etc.
GPO	Superintendent of Documents Government Printing Office Washington, D.C. 20402 Use the **order number** indicated; if none appears, use the report number. Copies may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
NTIS	National Technical Information Service 5285 Port Royal Road Springfield, VA 22151 Use **PB order number**. A microfiche of each report listed with a PB number is available for $2.25. When a price is given, a paper copy is available.
Other	When the information indicates "Pending," "At Printer," etc., the report is not yet available. When a name and telephone number is given, contact the individual for further information.

DO NOT ORDER FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY

ib

ATTENTION

On June 29, 1975, the Office of Research and Development (ORD) was officially reorganized. One of the major impacts of this reorganization was to eliminate the former National Environmental Research Center (NERC) management structure for field operation and establish 15 individual laboratories which report directly to headquarters. As a result, the report number prefixes formerly associated with the NERC's have been replaced by one prefix (600) which represents all of ORD technical reports. Any questions arising from this report number change may be directed to the Technical Information Staff, Cincinnati, Ohio 45268, telephone 513/684-7281.

SEE INSIDE OF FRONT COVER FOR "HOW TO ORDER" REPORTS

FOREWORD

This is the fifth issue of the Office of Research and Development's (ORD's) quarterly **ORD PUBLICATIONS SUMMARY**. This **Summary** is intended to provide a current listing (since July 1973) of ORD's final reports on in-house, grant, contract, and interagency projects. A New Report Abstracts Section is included in the **Summary** to provide brief abstracts of recently printed reports, as well as indices by Title, Subject Area, Performing Organization, Personal Author, Report Number, and Grant, Contract, or Interagency Agreement Number to aid the reader in identifying reports of interest. Instructions on how to order copies of reports are on the inside of the front cover. Comments on how this **Summary** would serve the reader more effectively would be appreciated.

WK Talley
Wilson K. Talley
Assistant Administrator for
Research and Development

CONTENTS

Page

How to Order . . . . .inside front cover

Foreword iii

Series Description vi

Users' Guide vii

New Report Abstracts Section 1

Bibliographic Section

600 Reports 46

650 Reports 68

660 Reports 90

670 Reports 105

680 Reports 123

Title Index 125

Current Subject Area Index 152

Performing Organization Index 180

Personal Author Index 203

Grant, Contract, Interagency Agreement Number Index 221

SERIES DESCRIPTION

The U.S. Environmental Protection Agency (EPA) was formed in late 1970 from programs in several executive agencies, i.e., the Department of Health, Education, and Welfare (air pollution, solid waste, radiation, water hygiene, and noise), the Department of the Interior (water pollution), and the Department of Agriculture (pesticide regulation).

In July 1972, EPA's Office of Research and Monitoring (now Office of Research and Development, ORD) established an office-wide series of designations within which each research report would be published. The series can be used to describe the general thrust of EPA research and development and also to aid in identifying the use for each report. The present numbering system and cover color for each report is keyed to this Series Description.

SERIES 1 – ENVIRONMENTAL HEALTH EFFECTS RESEARCH (yellow covers)

Assigned to Series 1 are projects and studies relating to the tolerances of man for unhealthful substances or conditions, generally assessed from a medical viewpoint. In addition to toxicology and other medical specialties, study areas include physiological or psychological studies, and biomedical instrumentation and health research techniques utilizing animals—but always with intended application to human health protection.

SERIES 2 – ENVIRONMENTAL PROTECTION TECHNOLOGY (light blue covers)

Within Series 2 is research performed to develop and demonstrate instrumentation, equipment, and methodology to repair or prevent environmental degradation from point and nonpoint sources of pollution. This work provides the new or improved technology necessary to control and treat pollution sources so that environmental quality standards can be met.

SERIES 3 – ECOLOGICAL RESEARCH (light green covers)

In Series 3 are grouped the investigations on pollution effects on plant and animal species and on materials. Problems are assessed for their long- and short-term influences and studies include formation, transport, and pathway studies to determine the fate of pollutants and their effects. This work provides the basis for setting standards to minimize undesirable changes in living organisms in the aquatic, terrestrial, and atmospheric environments.

SERIES 4 – ENVIRONMENTAL MONITORING (gray covers)

Research conducted to develop new or improved methods and instrumentation for identifying and quantifying environmental pollutants is found in Series 4. Also included are studies to determine the ambient concentrations of pollutants in the environment, or the variance of pollutants as a function of time or meteorological factors, or both.

SERIES 5 – SOCIOECONOMIC ENVIRONMENTAL STUDIES (rust covers)

Included in Series 5 is research devoted to the socioeconomic impact of environmental problems, i.e., recycling and other recovery operations whose emphasis is on monetary incentives and nonscientific realms of legal systems, cultural values, and business systems. Because the interdisciplinary scope of system evaluations and environmental management, these reports are included in Series 5.

SERIES 6 – SCIENTIFIC AND TECHNICAL ASSESSMENT REPORTS (STAR) (dark blue covers)

In Series 6 are assessments of the available scientific and technical knowledge on major pollutants that would be helpful in regulatory decision making or assessments of a major area of completed study. The series is used to present objective evaluations of existing knowledge— evaluations that point out the extent to which it is definitive, the validity of the data on which it is based, and the uncertainties and gaps that may exist. (Most of the reports are multimedia in scope and focus on single media only to the extent warranted.)

SERIES 9 – MISCELLANEOUS (covers of various designs)

Series 9 is used for all reports issued by ORD not applicable to one of the series described above.

USERS' GUIDE

This volume contains an abstract section, a bibliographic section, and six indices. Within each index, reports are cross-referenced to the Bibliographic Section by report number. The bibliographic section and indices are cumulative so you need only refer to the most recent issue for ordering information.

NEW REPORT ABSTRACTS SECTION

This section contains a brief abstract of each recently printed report. An abstract will appear in only one issue so if you need copies of abstracts for reference purposes, you must retain each issue of the **Summary**. If no source is shown in the Bibliographic Section, the report is not yet available. Future issues of the **Summary** will note those reports for which an abstract has been published and indicate the issue in which the abstract appeared; e.g., ---Abstracted 600/9–74–001a---.

BIBLIOGRAPHIC SECTION

In the Bibliographic Section is a numerical listing of reports published since July 1973. The source of each report follows the bibliographic entry, and how to order instructions are given on the inside front cover.

TITLE INDEX

All reports are listed alphabetically by title; "A," "An," and "The" have been dropped from the beginnings of titles.

CURRENT SUBJECT AREA INDEX

This Current Subject Area Index provides a broad subject-matter index; each report is listed once, alphabetically by title, under the Subject Area concerned with the report's research. Reports not falling within a specific area such as bibliographies or annual reports, are listed under Miscellaneous Reports.

PERFORMING ORGANIZATION INDEX

This is an alphabetical listing of the organizations which conducted the research reported on in these reports. For grants or contracts, the organization is the grantee or contractor; for in-house reports, the organization is the EPA laboratory or office.

PERSONAL AUTHOR INDEX

The Personal Author Index lists alphabetically all authors of reports contained in the Bibliographic Section.

GRANT, CONTRACT, INTERAGENCY AGREEMENT NUMBER INDEX

This index contains a listing of ORD Contract, Grant, and Interagency Agreement numbers for which a final report has been produced. For each number listed the applicable report number is cross-referenced.

NEW REPORT ABSTRACTS SECTION

600/1–76–001 PE 1AA601 CONTRACT NO. 68–02–1723

Effects of Low Levels of Ozone and Temperature Stress BY S. M. Horvath, and L. J. Folinsbee, California, University of Santa Barbara, CA

Cardiopulmonary and metabolic responses of 20 adult males (age 19–29) before, uuring and after a 2-hour exposure to either filtered air or 0.50 ppm ozone under four ambient conditions (25°C, 45% rh; 31°C 85% rh; 35°C, 40% rh; 40°C, 50% rh) were determined. Exercise at 40% of the individual's $V_{O2\ max}$ was performed from 60– 90 min of exposure. There were no cardiovascular changes due to ozone exposure but heart rate increased and stroke volume decreased with increasing heat stress. Rectal, mean body, and mean skin temperature also increased in the heat and were significantly correlated (P 0.05) with WBGT. There was a decrease in vital capacity and total lung capacity due primarily to a reduction of inspiratory capacity following ozone exposure. Maximum expiratory flow (indicated by $FEV_{1.0,\ 2.0,\ 3.0}$, MEF50%, MEF25%, and MMEF) was also reduced following ozone exposure but, as with vital capacity, the greatest decrease occurred immediately following the exercise period in ozone. The combination of heat stress and ozone exposure resulted in significantly greater impairment of pulmonary function and more numerous reported symptoms than in the room temperature ozone exposure. The trachial-bronchial irritation caused by ozone reduces the vital capacity and maximum expiratory flow and this effect is more pronounced when the ozone exposure occurs in a hot environment. EPA CONTACT: Malindzak Jr., G. S. 8–629–2601

600/1–76–002 PE 1EA078 GRANT NO. 802022

Role of Mixed Function Oxidases in Insecticide Action BY R. L. Metcalf, Illinois, University of Urbana, IL

The role of the microsomal oxidase enzymes (MFO) in the biochemistry and toxicology of insecticides has been studied. Insects contain greatly vary titres of these enzymes. A survey of 74 species from 40 families in 8 orders, using the topical LD_{50} of carbaryl alone and together with the inhibitor piperonyl butoxide showed 55,000-fold variability in LD_{50} largely due to MFO detoxication. In individual species of Diptera, MFO activity is highly variable with age, sex, and stage of development. The DDT-type molecule has been as a model for the study of degradophores, i.e. molecule groupings that can serve as MFO substrates. Their oxidation thus converts lipophilic compounds into more water-partitioning moieties and thus promotes excretion rather than lipid storage. Suitable degradophores for the DDT-type molecule are alkyl and alkoxy groups on the aryl rings. Compounds with judicious combinations of these provide relatively long persistence on inert surfaces and ready biodegradability *in vivo*. Such compounds are much less toxic to mice and to fish than DDT but because of the generally lower MFO of insects, can be effective insecticides. The role of degradophores incorporated into the aliphatic moiety of DDT has also been explored, where the $-CH(CH_3)_2$, $-CHCH_3Cl$ and $-CHCH_3NO_2$ groups are useful. Induction experiments with the biodegradable DDT analogues in mice has demonstrated that unlike DDT, these compounds do not elevate liver MFO. EPA CONTACT: Baron, R. L. 8–629–2326

600/1–76–003 PE 1EA078 GRANT NO. 801800

Effect of Duck Hepatitis Virus on Pesticide Toxicity BY W. L. Ragland, Georgia, University of, Poultry Disease Research Center Athens, GA

This report presents the results of an investigation into the effect of viral replication on hepatic endoplasmic reticulum on the activities of the microsomal drugmetabolizing enzymes of liver. Two viruses which replicate on hepatic endoplasmic reticulum without producing hepatic disease were used. They were Newcastle disease vaccinal virus in chickens and duck hepatitis virus in adult ducks. The microsomal enzymes assayed were ethylmorphine N-demethylase, aryl hydrocarbon hydroxylase and anyline hydroxylase. The soluble enzyme, nitroreductase, also was assayed in chickens. Pesticide residue analysis was used to evaluate indirectly the macrosomal enzymatic conversion of DDT to DDD and the soluble enzymatic conversion of DDT to DDE in ducks. Viral replication did not increase the activities of the microsomal enzymes and may have decreased the activities slightly. Viral replication prior to chemical induction of enzymes in chickens by phenobarbital and in ducks by DDT resulted in greater activities of the microsomal enzymes but not the soluble enzymes than was obtained by chemical induction without prior viral replication. Although the microsomal enzymes were induced to greater levels by viral replication, pesticide residue analysis failed to demonstrate increased clearance of residues from body tissues. EPA CONTACT: Baron, R. L. 8–629–2326

600/1–76–004 PE 1EA078 GRANT NO. 801837

Chemistry and Mode of Action of Insecticides BY T. R. Fukuto, California, University of, Department of Entomology Riverside, CA

This report summarizes research accomplishments for the period January 1, 1971 to September 1, 1975. The study is concerned with the intoxication and detoxication processes which take place when an animal or plant is exposed to different organic insecticides. Progress in the following general areas is reported: (1) insecticide selectivity, (2) insecticide metabolism, (3) inhibition of the cholinesterase enzymes, (4) structure-activity relationships in insecticides, (5) oxidative conversion of PS to PO esters, (6) insecticide synergism and insect growth regulators, (7) chemical reaction involving carbamate and organophosphorus esters, (8) insecticide cyclic nucleotide interactions, (9) insecticide penetration and its relation to resistance, (10) gas chromatography of insecticides, (11) neurophysiological studies on insecticide mode of action, (12) insecticide resistance, and (13) joint action of insecticides and herbicides. EPA CONTACT: Santolucito, J. A. 8–629–2541

NEW REPORT ABSTRACTS SECTION

600/1–76–005 **PE 1EA078** **CONTRACT NO. 68–02–1289**

In-Vitro Screening Methods Evaluating the Neurotoxic Potential of Pesticides BY T. Narahashi, Duke University Medical Center Durham, NC

The abdominal nerve cord preparation isolated from the crayfish is far superior to the frog neuromuscular and crayfish neuromuscular preparations for evaluation of neurotoxicity of various pesticides and other environmental agents. Neurotoxicity is manifested as stimulation and/or paralysis of spontaneous discharges of the nerve cords. The techniques involved in this experiment are rather simple, and require only reasonable amounts of conventional electrophysiological equipment. Thus, such toxicity evaluation can be performed with a modest amount of expense. More sophisticated and efficient data acquistion systems could be developed using basically the same techniques. The order of potency of various insecticides in stimulating the crayfish abdominal nerve cord is as follows: allethrin approximately or equal to carbofuran > carbaryl > Baygon (propoxur) approximately or equal to p,p'-DDT approximately or equal to toxaphene > ferbam approximately or equal to moncrotophos approximately or equal to dursban approximately or equal to chlordimeform > leptophos approximately or equal to dichlofenthion. No neurotoxic effect is exerted by insect sex attractants and insect growth regulators including Altosid, Orfamone, Codlemone, ZR 777, cis-11 tetradecenyl acetate, and TH 6040. EPA CONTACT: Santolucito, J. A. 8–629–2541

600/1–76–006 **PE 1AA005** **IAG NO. IAG D4–509**

National Environmental Specimen Bank Survey BY R. I. Van Hook, and E. E. Huber, Oak Ridge National Laboratory Oak Ridge, TN

This report presents the data base developed in the National Environmental Specimen Bank (NESB) Survey. The methodology utilized in developing the mailing lists and in developing and maintaining the data base records also is included. The NESB Survey Data Base is computerized in the Oak Ridge Computerized Hierarchical Information System, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830. The NESB Survey mailing list consisted of 4500 names and addresses. The 657 environmental specimen collections that were located and documented in the NESB Survey Data Base include the following categories: animal, atmospheric, geological, microbiological, plant, and water. However, the majority of the collections identified are biological in nature. Three indices of the NESB Survey Data Base are included in this report: (1) respondents' names and addresses categorized by organizational affiliation, (2) alphabetical listing of respondents, and (3) geographical sampling location for materials in collections. No attempt is made in this report to evaluate the information obtained in the NESB Survey. EPA CONTACT: Goldstein, G. M. 8–629–2601

600/1–76–007 **PE 1FA082** **IN-HOUSE PROJECT**

Bibliography of the Cat: Revised Edition BY E. Berman, and C. G. Liddle, Health Effects Research Laboratory, EPA Research Triangle Park, NC

This revision of EPA-650/3–74–001 (now obsolete) is a bibliography of the scientific and clinic literature of the cat. It contains more than 2300 titles (the majority accompanied by an abstract) as well as a listing of cited authors and a cross-index of the references by subject descriptors. The volume is 631 pages. EPA CONTACT: Berman, E. 8–629–2781

600/1–76–008 **PE 1EA078** **GRANT NO. 800384**

Mode of Action of Cyclodiene Insecticides BY L. A. Crowder, Arizona, University of, Department of Entomology Tucson, AZ

This report contains information concerning the mode of action, excretion, and metabolism of the cyclodiene insecticides. Toxaphene was the primary candidate for investigation with major emphasis on the mammalian system. Excretion of ^{36}Cl-toxaphene was studied in the laboratory rat. Upon extraction, most of the radioactivity occurred in the water fractions of urine and feces as ionic chloride, indicating considerable metabolism of toxaphene. Only minimal storage appeared to occur. Occurrence of radioactivity in several tissues of *Leucophaea maderae* was determined after injections of ^{36}Cl-toxaphene. Uptake of 10^{-5}M ^{36}Cl-toxaphene in subcellular particles of ventral nerve cord and brain was studied and showed significant levels in the larger cell fragments; microsomes were also labelled. The toxicity syndrome of toxaphene to *Gambusia affinis* was divided into 5 stages, and the residue level at each stage was determined. Excretion was not observed. Metabolic alteration of toxaphene appeared to be minimal. Differences in individual mortality appeared to be due to differences in uptake rather than differences in ability to tolerate particulate body loads of toxaphene. Ventral nerve cords of *Periplaneta americana* and *L. maderae* showed increased nerve activity as viewed electrophysiologically when exposed to toxaphene. Toxaphene appeared to be a neurotoxicant. EPA CONTACT: Durham, W. F. 8–629–2655

NEW REPORT ABSTRACTS SECTION

600/1–76–009 PE 1AA601 CONTRACT NO. 68–02–1944

Effects of Oxidant and Sulfate Interaction on Production of Lung Lesions BY G. Freeman, and L. T. Juhos, Stanford Research Institute Menlo Park, CA

This line of investigation is designed primarily to determine the sub-acute and chronic effects of sulfuroxide inhalation alone and in combination with oxidant exposure on the respiratory system of laboratory animals. Preliminary experiments are being conducted to determine the optimum concentration of small-particle H_2SO_4 exposure to use in subsequent H_2SO_4-oxidant experiments. The comparative response of rats, guinea pigs and monkeys is being determined. The effects of SO_2-O_3 mixtures will be determined also. The principal biologic response being determined are the histopathologic response, including ultrastructural studies and autoradiographic assessment of cell turnover rates, biochemical studies and physiologic measurements. EPA CONTACT: Fairchild, G. 8–629–2538

600/1–76–010a PE 1AA601 CONTRACT NO. 68–02–1205

Assessment of Toxicity of Automotive Metallic Emissions. Volume I: Assessment of Fuel Additives Emission Toxicity via Selected Assays of Nucleic Acid and Protein Synthesis BY D. J. Holbrook Jr., North Carolina, University of Chapel Hill, NC

Various parameters of toxicity have been studied for salts of manganese, lead, palladium, and platinum. Acute toxicities (LD-50 doses) are reported for both intraperitoneal injection and oral administration for the following salts: $PtCl_4$, $Pt(SO_4)_2$, $PdCl_2$, $MnCl_2$, $PdSO_4$, $PtCl_2$, $RuCl_3$, PtO_2, PbO, PdO, and MnO_2. Concentrations of metallic ions following dietary administration are reported, as are effects on weights of five organs (liver, kidney, spleen, heart, testes). Also following dietary administration, hepatic microsomes were isolated and the following parameters related to *in vitro* drug metabolism were measured: yield of microsomal protein/g liver; *in vitro* activities of aniline hydroxylase and aminopyrine demethylase; content of cytochromes P-450 and b5/mg microsomal protein. Development of a rapid and convenient method for the analysis of ribosomal RNA in studies of RNA synthesis is reported. EPA CONTACT: Duffield, F. P. 8–629–2525

600/1–76–010b PE 1AA601 CONTRACT NO. 68–02–1701

Assessment of Toxicity of Automotive Metallic Emissions. Volume II: Relative Toxicities of Automotive Metallic Emissions Against Lead Compounds Using Biochemical Parameters BY D. J. Holbrook Jr., North Carolina, University of Chapel Hill, NC

Results of intraperitoneal (IP) administration of $PtCl_4$ or $Pd(NO_3)_2$ are reported. Administration at levels of 28 or 56 moles/kg body weight decreased the thymidine incorporation into DNA of spleen, liver, and testes. Effects of various salts of platinum or palladium administered by intraperitoneal injection or ingestion were determined on the parameters of the microsomal mixed function oxidase system from rat liver. Lethal-dose studies are reported following the intraperitoneal or oral administration of salts of lead, manganese, platinum, and palladium to young male rats. Studies have been conducted on the effect of dietary administration of salts of Pb, Mn, Pt, and Pd on the following: the growth rate of male rats, the organ weight of five tissues (liver, kidney, spleen, heart, and testes), and the tissue content of DNA, RNA, and protein. EPA CONTACT: Duffield, F. P. 8–629–2525

600/1–76–011 PE 1AA601 IN-HOUSE PROJECT

Community Health Environmental Surveillance Studies (CHESS) Air Pollution Monitoring Handbook: Manual Methods Health Effects Research Laboratory, EPA Research Triangle Park, NC

This document is a methods manual handbook for the Community Health Environmental Surveillance Studies program. It covers Total Suspended Particulates (TSP), Total Suspended Nitrates (TSN), Total Suspended Sulfates (TSS), Respirable Suspended Particulate (RSP), Sulfur Dioxide, and Nitrogen Dioxide. This manual is to be used as a reference publication. EPA CONTACT: Love, G. J. 8–629–2242

600/1–76–012 PE 1EA488 CONTRACT NO. 68–02–1703

Optimization and Evaluation of a Microelectrolytic Conductivity Detector for the Gas Chromatographic Determination of Pesticide Residues BY R. C. Hall, Purdue University West Lafayette, IN

A microelectrolytic conductivity detector has been optimized and evaluated for the determination of halogen, nitrogen, and sulfur-containing pesticide residues in water, soil and biological samples. The influence of detector operating parameters on detector sensitivity and specificity to model compounds was investigated. Specific parameters studied included furnace temperature, reaction gas, reaction gas flow-rate, conductivity solvent, conductivity solvent flow-rate, reactor contact material, and abstracting agents. Detection limits of representative pesticides were determined for a variety of sample types using optimized detector operating conditions. EPA CONTACT: Lewis, R. G.

NEW REPORT ABSTRACTS SECTION

600/1–76–013 **PE 1CC614** **IN-HOUSE PROJECT**

Methyl Mercury and the Metabolic Responses of Brain Tissue BY R. J. Bull, Health Effects Research Laboratory, EPA Cincinnati, OH

Weanling, Sprague-Dawley rats have been exposed to methyl mercuric chloride (concentrations from 0.01 to 10.0 mg/liter) in their drinking water. At 10 mg/liter the animals exhibited neurological symptoms typical of methyl mercury. Also, in this group a considerable decrease in growth occurred which was associated with a decreased consumption of food. Responses of the respiratory intermediates to stimulation were found to be altered in cerebral cortex slices taken from exposed animals. Effects on tissue pyridine nucleotides predominated. An enhancement of the rate of pyridine nucleotide reduction by electrical stimulation was observed at 0.1 mg/liter. This rate progressively decreased at higher dose levels. Reoxidation of reduced pyridine nucleotide was also inhibited at 0.1 mg/liter at both 90 and 180 days of exposure. Potassium stimulated aerobic glycolysis was found to be enhanced in its initial stages at 0.10 mg/liter of methyl mercuric chloride in the drinking water but progressively declined at 1.0 and 10 mg/liter. A close parallel was observed between the time constant of pyridine nucleotide oxidation following electrical stimulation and the "responsiveness" of the aerobic glycolytic rate to stimulation by potassium. These results suggest an initial defect in the oxidation of cytoplasmic NADH which progresses to loss of metabolic control of cytoplasmic oxidations. EPA CONTACT: Bull, R. J. 8–684–7217

600/1–76–014 **PE 1AA601** **CONTRACT NO. 68–02–1226**

Selenium National Academy of Sciences Washington, DC

This report is an in-depth study that attempts to assemble, organize, and interpret present-day information on selenium and its compounds, and the effects of these substances on man, animals, and plants. Emphasis is given to the effects of selenium on man, conclusions are drawn from the evaluation of current knowledge on the subject, and recommendations are made for further research. Although selenium is highly toxic in many of its chemical forms, a number of factors suggest that it probably is not a significant pollution problem. The bulk of the industrial uses of selenium are such that only small amounts of the element are injected into the ecosphere. Burning of coal and oil are estimated to account for nearly 70% of the selenium emitted into the atmosphere, but dispersion of selenium as a result of fossil fuel combustion does not appear to be an important pollution problem. Although the selenium content of foods varies widely, the variation is not extreme in either direction, and little concern regarding selenium deficiency or selenium toxicity in human beings is warranted. This statement, of course, does not apply to populations that may be subsisting entirely on foods grown in seleniferous regions. There is little evidence to indicate any biomagnification of selenium in the food chain. These reassuring statements must not obscure the fact that in many areas we are ignorant concerning the ecologic impact of selenium. EPA CONTACT: Horton, R. J. M. 8–629–2266

600/1–76–015 **PE 1AA601** **GRANT NO. 800230**

Realistic Models for Mortality Rates and Their Estimation BY V. K. Murthy, California, University of Los Angeles, CA

The objective of a medical follow-up study is generally to determine the effectiveness of each of several treatments by analyzing the responses of the patients. Frequently the response data coming out of these investigations are time to death of patients who are not otherwise lost to the follow-up of our investigation. The statistical nature of these data are characterized in this report. By definition the, "Force of mortality or mortality rate function," is the rate associated with the probability of the patients' death in a specified short interval of time, given that the patient has survived to this instant in time. Mathematical models are presented which, as special cases, represent constant, increasing and decreasing mortality rates, along with combinations of these properties. Usually, these mortality rate curves are "U" shape. The first part of the curve corresponds to infantile mortality, the second part corresponds to useful life, and finally, the last part corresponds to decay, aging, etc., culminating in death. Their corresponding probability distribution and survivorship functions are obtained in closed form. Methods of estimating the parameters are developed and procedures dealing with computational details and statistical properties are discussed. EPA CONTACT: Riggan, W. B. 8–629–2674

600/1–76–016 **PE 1AA601** **IAG NO. IAG-D4–0439**

Comparative Methylation Chemistry of Platinum, Palladium, Lead, and Manganese BY R. T. Taylor, California, University of, Lawrence Livermore Laboratory Livermore, CA

A study was carried out to evaluate the potential for platinum, palladium, lead, and manganese salts and oxides to be biochemically methylated. Methylation is an important, well recognized, determinant of metal toxicity; the striking example being the extreme health hazard of methylated mercury. The possible biological methylation of the metals which are associated with emissions arising from the use of automotive fuels, fuel additives, and catalytic control devices is of special concern to the Environmental Protection Agency's Catalyst Research Program. Salts of platinum, palladium, and lead, and oxides of lead all containing the metal in a 4c valence were observed to demethylate methylcobalamin, a biologically active form of vitamin B-12. Inorganic salts and oxides of manganese were unreactive. No evidence for a stable monomethyl-metal derivative was found using palladium and lead compounds as reactants. However, salts of platinum 4c do result in the formation of stable methylation products. The reaction product formed from methylcobalamin and hexachloro-platinate was shown definitively to be a monomethylplatinum compound. It is sufficiently stable in aqueous solutions under a variety of conditions to exist in freshwater ecosystems and to exhibit toxic effects on mammalian cells. EPA CONTACT: Duffield, V.

NEW REPORT ABSTRACTS SECTION

600/1-76-017 PE 1EA615 CONTRACT NO. 68-02-1727

Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples BY J. Sherma, Lafayette College Easton, PA

This manual primarily provides the pesticide chemist with a systematic protocol for the prevention and control of analytical procedures which arise in the analysis of human or environmental media. The sections dealing with inter- and intra-laboratory quality control, the evaluation and standardization of materials used, and the operation of the gas chromatograph are intended to highlight and provide advice in dealing with many problems which constantly plague the pesticide analytical chemist. Section 7 discusses many aspects of the problem areas involved in extraction and isolation techniques for pesticides in various types of samples. Techniques for confirming the presence or absence of pesticides in sample materials are treated, at some length. This highly important area provides validation of the data obtained by the more routine analytical procedures. The gas chromatograph, being the principal instrument currently used in pesticide analysis, often requires simple servicing or troubleshooting. A section addressing some of these problems is included. Last, but by no means least in importance, is a short dissertation of the value and need for systematic training programs for pesticide chemists. EPA CONTACT: Thompson, J. F.

600/1-76-018 PE 1AA601 CONTRACT NO. 68-02-1287

Toxicology of Metals – Volume I BY L. Friberg, Subcommittee on the Toxicology of Metals Research Triangle Park, NC

This report consists of three main sections. The first (36 p.) is the transcript of a panel discussion of a meeting of the Subcommittee on the Toxicology of Metals. It covers the general principles and mechanisms of absurption and excretion of all metals, but of heavy metals in particular. The second section, by a task group from the Subcommittee, consists of additional information on accumulation and retention of toxic metals, with special emphasis on absorption, excretion, and biological half-times, particularly of cadmium, lead, and mercury. The third section (182 p.) a consensus report of a Subcommittee meeting, covers the dose-effects and doseresponse relationships of toxic metals, specifically cadmium, lead, and mercury. The second and third sections contain information on critical organs, effects, and concentrations, as well as on models of retention and excretion and homeostatic mechanisms in general. EPA CONTACT: Horton, R. J. M.

600/1-76-019 PE 1AA601 CONTRACT NO. 68-02-1274

Baseline Levels of Platinum and Palladium in Human Tissue BY D. E. Johnson, R. J. Prevost, J. B. Tillery, D. E. Camann, and J. M. Hosenfield, Southwest Research Institute San Antonio, TX

This report presents the results of an epidemiological study of populations living near a freeway in Los Angeles, California, and in the high desert region of Lancaster, California, for concentrations of platinum, palladium, and lead in blood, urine, hair, feces, autopsy tissues, ambient air, surface water, and soil. Platinum and palladium are determined in samples from miners in Sudbury, Ontario, Canada, and metal refinery workers in New Jersey. Analytical methods are developed for platinum, palladium, and lead using atomic absorption spectrophotometry. The objective is to determine baseline levels of platinum and palladium in the population and environment prior to wide-spread use of catalyst-equipped vehicles. Lead is determined to ascertain the future epidemiological effect of non-leaded gasoline. Platinum and palladium concentrations were below the detection limit for Los Angeles, Lancaster, and Sudbury samples. Refinery workers' urine and refinery air samples has detectable concentrations of both metals. Higher lead values were observed in Los Angeles samples taken near the San Diego Freeway than in samples taken in the high desert area of Lancaster, California. EPA CONTACT: Bruce, R. M. 8-629-2601

600/1-76-020 PE 1AA601 CONTRACT NO. 68-02-1226

Chlorine and Hydrogen Chloride National Academy of Sciences Washington, DC

The purpose of this report is to discuss the medical, biologic, and environmental effects of chlorine pollution in the lower atmosphere. The first three chapters discuss the natural and anthropogenic sources of pollution by chlorine and hydrogen chloride, the varied industrial and other usages of chlorine and hydrogen chloride and the quantities consumed, the atmospheric chemistry of their transformation and transport processes, and their spatial distribution. Later chapters deal with the effects of chlorine and hydrogen chloride on man, animals, vegetation, and materials. Chapters 9 and 10 present the summary and conclusions and offer recommendations for consideration in future studies. Methods of monitoring and analyzing aqueous, gaseous, and biologic samples for chlorine and hydrogen chloride are discussed in the Appendix. EPA CONTACT: Hueter, F. G.

600/1-76-021 PE 1AA601 CONTRACT NO. 68-02-1243

Trace Substances and Tobacco Smoke in Interaction with Nitrogen Oxides: Biological Effects BY G. Freeman, and L. T. Juhos, Stanford Research Institute Menlo Park, CA

The emphasis of this study is on determination of the response of newborn animals living in an environment containing nitrogen dioxide. The following are also examined: (1) both mature and newborn monkeys (Macaca speciosa) exposed continuously to NO_2 or to ozone, (2) the relative effects of tobacco smoke compared with those of NO_2, (3) the binding of NO_2 in tissue, based on the use of isotopically labeled, nonradioactive NO_2, and (4) the detailed hematologic effects of exposure to NO_2 or to ozone. In addition to the usual parameters for detecting changes in the erythrocytic series, biochemical studies were conducted on the blood of exposed animals. EPA CONTACT: Coffin, D. L. 8-629-2531

NEW REPORT ABSTRACTS SECTION

600/2-76-001 PE 1AB012 ROAP/TASK 21 ADL 029 CONTRACT NO. 68-02-1324

Evaluation of Sonics for Fine Particle Control BY R. Hegarty, and L. J. Shannon, Midwest Research Institute Kansas City, MO

The report gives results of an evaluation of the potential of sonic agglomeration as a means of improving capabilities for controlling fine particle emissions. Available theoretical and experimental information indicates that sonic agglomerators can increase the mean particle size of aerosols; however, the energy requirements are quite high when the gas stream contains predominantly fine particulates. Even under ideal conditions, energy consumption would range from 1 to 15 hp/1000 cfm. These ideal energy levels are not very competitive with other devices capable of removing fine particulates, especially when a high efficiency control system is required as a collector in order to minimize energy consumption in the sonic agglomerator. EPA CONTACT: Drehmel, D. 8-629-2925

600/2-76-002 PE 1AB015 ROAP/TASK 21 AQR 042 CONTRACT NO. 68-02-1323

Control of Reclamation (Sinter) Plant Emissions Using Electrostatic Precipitators BY J. Vargo Jr., Battelle Columbus Laboratories Columbus, OH

The report briefly reviews the sintering process as it applies to the U.S. integrated iron and steel industry. The review includes data on characteristics of the emissions, and a list of all the iron and steel reclamation (sinter) plants in the U.S., their annual capacity, and the types of emission control equipment used. The report contains a detailed discussion of the theoretical and practical aspects of designing both wet and dry electrostatic precipitators (ESPs) to control the sinter machine windbox emissions. It gives design specifications for a proposed wet ESP installation on a large modern sinter plant. EPA CONTACT: McCrillis, R. 8-629-2557

600/2-76-003 PE 1AB014 ROAP/TASK 21 BCC 013 CONTRACT NO. 68-02-0224

Survey and Evaluation of Kinetic Data on Reactions in Methane/Air Combustion BY V. S. Engleman, Exxon Research and Engineering Company Linden, NJ

The report gives results of a survey and evaluation of kinetic data on the chemical reactions involved in methane/air combustion at 1 atm pressure, 80-125% stoichiometric air, and combustion temperatures between 1500 and 2500K. First, a set of species commonly observed or postulated to play a role in methane/air combustion was selected. Next, a computer code was developed, assembling all mathematically possible unimolecular and bimolecular reactions involving those species. The report includes information on the thermochemistry, a literature survey of reported rate data, an evaluation of the importance of each reaction, recommendations of the best rate data from that available in the literature, and rate estimates for potentially important reactions for which no satisfactory rate was found in the literature. The report concludes with: a description of procedures used to calculate the thermochemistry of methoxyl; a cross-index of all reactions involving a particular species; a master list of all reactions for an expanded number of species; and a summary of the information on reactions in the kinetics survey. EPA CONTACT: Lanier, W. S. 8-629-2432

600/2-76-004 PE 1AB013 ROAP/TASK 21 ARO 002 CONTRACT NO. 68-02-0286

Iron Foundry Cupola Recuperative Emission Control Demonstration BY J. F. Turner III, Flynn and Emrich Company Baltimore, MD

The report gives results of a project intended to demonstrate the use of a dry, solidmedia heat exchanger for the production of hot blast air for the cupola as an integral part of the air pollution control system. Economic advantages—in the form of reduction in fuel costs, operating costs, and air pollution control equipment costs—were expected. Data on the operation of the cupola and heat exchanger were to be analyzed with, and used to refine, a computer model. The refined model was then to have been used to extend the results to other operations. The system never became operational because of problems in interfacing the operation of the cupola, heat exchanger, and air pollution control systems. The report outlines system design deficiencies, presents the results of the work completed on the computer model, and describes the test equipment selected. EPA CONTACT: McCrillis, R. 8-629-2557

600/2-76-005a PE 1BB045 GRANT NO. 16080 DPC

Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia – Volume I BY J. A. Westphal, J. V. A. Sharp, and R. L. Bateman, Nevada, University of, Center for Water Resources Research Reno, NV

A digital inorganic water-quality model was developed for Tahoe-Truckee System NevadaCalifornia. The system consists of mainstem and tributaries of Truckee River between Tahoe City, California and Nixon, Nevada. Flows and inorganic quality of surface waters are influenced by impoundments, diversions for returns from municipal, industrial, and agricultural uses, and ground-water returns. The Model is based on the principal of mass-flux-balance and presumes (1) that inorganic constituents are conservative, (2) complete mixing occurs instantaneously, and (3) that flows are recapitulated accurately at the defunct gaging station near Truckee, California. The model was developed from three years of water-quality data collected monthly at approximately 40 sites along the mainstem and on tributaries. Constituents modeled were bicarbonate, chloride, sulfate, sodium, potassium, calcium, magnesium, silica, and total dissolved solids (minus silica). EPA CONTACT: Wise, J.

NEW REPORT ABSTRACTS SECTION

600/2-76-005b PE 1BB045 GRANT NO. 16080 DPC

Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia: Volume II – Appendices BY J. A. Westphal, J. V. A. Sharp, and R. L. Bateman, Nevada, University of, Center for Water Resources Research Reno, NV

A digital inorganic water-quality model was developed for Tahoe-Truckee System Nevada-California. The system consists of mainstem and tributaries of Truckee River between Tahoe City, California and Nixon, Nevada. Flows and inorganic quality of surface waters are influenced by impoundments, diversions for returns from municipal, industrial, and agricultural uses, and ground-water returns. The Model is based on the principal of mass-flux-balance and presumes (1) that inorganic constituents are conservative. (2) complete mixing occurs instantaneously, and (3) that flows are recapitulated accurately at the defunct gaging station near Truckee, California. The model was developed from three years of water-quality data collected monthly at approximately 40 sites along the mainstem and on tributaries. Constituents modeled were bicarbonate, chloride, sulfate, sodium, potassium, calcium, magnesium, silica, and total dissolved solids (minus silica). EPA CONTACT: Wise, J.

600/2-76-006 PE 1BB034 ROAP/TASK 21 ASY 039 CONTRACT NO. 68-03-0409

Design and Testing of a Prototype Automatic Sewer Sampling System BY P. E. Shelley, EG&G Washington Analytical Services Center, Inc. Rockville, MD

A brief review of the characteristics of storm and combined sewer flows is given, followed by a discussion of the requirements for equipment to sample them, noting features that are desirable in such equipment and problem areas. When considered from a systems viewpoint, there are five functional subsystems. Design considerations for each of these are discussed, followed by a description of the design implementation used for each subsystem in the fabrication and assembly of a prototype automatic sewer sampling system intended for storm and combined sewer application and other adverse sewer flow conditions. The prototype sampler is described from an installation and operation viewpoint, and the results of preliminary field testing are discussed. The device was also tested under controlled laboratory conditions and found to be capable of gathering reasonably representative samples (i.e., within 10%) over a fairly wide range of flow characteristics, even for particles somewhat outside the regime of Stokes' Law. Four different commercially available samplers were tested under the same flow conditions in a side-by-side fashion. Their behavior was rather erratic, and they were not able to gather representative samples consistently. None of them were capable of good performance when appreciable bed load was present. Results from these commercial units ranged from an overall understatement of pollutant loading by 25% or more, to overstatements of 200% and more. EPA CONTACT: Masters, H. 8-342-7541

600/2-76-007 PE 1AB013 ROAP/TASK 21 BKR 007 IAG NO. IAG D4-0528

Mixed Oxides for Fuel Cell Electrodes BY U. Bertocci, M. Cohen, W. S. Horton, T. Negas, and A. R. Siedle, National Bureau of Standards Washington, DC

The report gives results of studies to determine if mixed oxides can act as oxygenreducing electrocatalysts in an acid fuel cell. Choices were based upon producing variable valence and upon conferring stability at elevated temperatures (less than or equal to 150 C) in phosphoric acid. Barium ruthenate and the systems Ti-Ta-O, V-Nb-O, V-Ta-O, Ce-Ta-O were hot-acid stable. Potentiodynamic and galvanostatic studies are reported on several materials. Preparation of inorganic compounds with ternary metal-sulfur arrays similar to the arrays in nitrogen reductase was attempted; several were prepared. EPA CONTACT: Johnson, G. L. 8-629-2815

600/2-76-008 PE 1AB013 ROAP/TASK 21 ADC 59 CONTRACT NO. 68-02-4191

SO_2 Control Processes for Non-Ferrous Smelters BY J. C. Mathews, F. L. Bellegia, C. H. Gooding, and G. E. Weant, Research Triangle Institute Research Triangle Park, NC

The report reviews and evaluates a number of absorption-based SO_2 control systems and the application of these control systems to those U.S. primary copper smelters which generate weak SO_2-containing gas streams. Capital and operating cost relationships have been developed for each specific process, covering a range of gas flows and SO_2 concentrations. Separate general costs for gas pretreatment and the end-of-the-line SO_2 utilization facilities (i.e., sulfuric acid, elemental sulfur, and liquid SO_2 plants) are also provided. The 13 U.S. primary copper smelters which currently still generate weak SO_2 streams have been reviewed with reference to their current operation and active programs in hand to control or eliminate weak SO_2 streams. Appropriate SO_2 control processes have been matched with the individual smelters and related capital and operating costs have been developed from the earlier established cost relationships. EPA CONTACT: Kemnitz, D. A. 8-629-2557

NEW REPORT ABSTRACTS SECTION

600/2–76–009 PE 1AB015 ROAP/TASK 21 AXM 062 CONTRACT NO. 68–02–1087

Odor Control by Scrubbing in the Rendering Industry BY R. H. Snow, and J. E. Huff, IIT Research Institute Des Plaines, IL BY W. Boehme, Fats and Proteins Research Foundation, Inc. Des Plaines, IL

The report gives results of experiments conducted at a rendering plant to obtain data needed to design wet scrubber systems for rendering plant odor control. Scrubber performance was measured by both odor panel and gas chromatographic analysis. Experiments in a three-stage packed-bed laboratory-scale scrubber at the rendering plant evaluated solutions of sodium hydroxide and the strong oxidants sodium hypochlorite, hydrogen peroxide, and potassium permanganate. Since removal of 90% per stage was obtained with fresh alkaline sodium hypochlorite solution, this reagent was selected for subsequent longer-term tests. A two-week test of a plant-scale horizontal spray scrubber, operating on plant ventilating air, showed odor removal of 83%. The outlet odor units averaged 64; the inlet ranged from 165 to 2500 odor units. A three-stage packed-bed scrubber was evaluated to replace an existing incinerator being used to treat a process air stream that contained from 5000 to 50,000 odor units. A week-long test with the scrubber gave a lowerthan-expected average odor reduction of 85%. Further work is suggested to investigate conditions necessary to improve the results. Data was obtained on chemicals consumption and effect of flow variables on odor removal; these data were used to update computer models that can be used to design scrubbers for odor removal. EPA CONTACT: Wooldridge, E. J. 8–629–2547

600/2–76–010 PE 1AB013 ROAP/TASK 21 BAV 014 CONTRACT NO. 68–02–1322

Sulfuric Acid Plant Emissions During Start-up, Shutdown, and Malfunction BY E. L. Calvin, and F. D. Kodras, Catalytic, Inc. Charlotte, NC

The report gives results of a study of dual-absorption contact sulfuric acid plants, as well as single-absorption plants equipped with vent gas cleaning systems for removal of SO_2, to determine the relationship between process parameters and air emissions. Processes studied were dual-absorption acid plants and singleabsorption acid plants equipped with sodium scrubbers, ammonia scrubbers, and molecular sieve adsorbers. Emissions considered were SO_2 and acid mist emissions and vent gas opacity. Relationships were developed for normal operations and compared to off-normal operations such as shutdown, start-up, malfunction, and misoperation. Process parameters and emission relationships are presented in statistical, tabular, and graphic form. Converter bed operating temperature ranges were established and causes of SO_2 and acid mist emissions are illustrated from plant operating data. EPA CONTACT: Hendriks, R. V. 8–629–2557

600/2–76–011 PE 1AB015 ROAP/TASK 21 AFA 016 IN-HOUSE PROJECT

Thor V Solventless Metal Decorating for Three-Piece Cans— Background BY J. W. Capron, and R. C. Heininger, Continental Can Corporation Chicago, IL

The report gives the background of a demonstration project to develop and commercialize the Thor V process to apply and cure an outside, protective/decorative, UV-cured white base coating on flat sheets used for the bodies of three-piece cans. The Thor V process is a single-pass line: the UV white coating is applied and UV-cured to a printable condition; and two conventional inks and a trailing varnish are applied, followed by baking in a gas-fired wicket oven. The conventional process is a two-line operation: one line applies the white coating, followed by the oven bake; the other applies the two inks and varnish, again followed by an oven bake. The Thor V process reduces total line length by 215 ft (65M) and total solvent emissions by about 66%, compared to the conventional process. Elimination of an oven and afterburner also reduces new equipment costs by over $400,000 and saves about 8 million Btu/hr (2 million Cal/hr) in gas consumption. The report also reviews development work to date, describes the Thor V line at a plant in Weirton, West Virginia, and describes work needed to complete the project. EPA CONTACT: Wooldridge, E. J. 8–629–2547

600/2–76–012a PE 1AB015 ROAP/TASK 21 AFH 025 CONTRACT NO. 68–02–1882

Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume I BY K. J. Bombaugh, E. C. Cavanaugh, J. C. Dickerman, S. L. Keil, T. P. Nelson, M. L. Owen, and D. D. Rosebrook, Radian Corporation Austin, TX

The report describes a general sampling and analytical strategy, developed for use in the identification of potentially hazardous components in process and waste streams. The strategy includes sampling, separation, and measurement, with options for different stream types. The sampling involves many generally available techniques and equipment. The separation relies on liquid/liquid partitioning and various forms of column chromatography. Measurement primarily involves gas chromatography, gas chromatography/ mass spectrometry, spark source mass spectrometry, atomic absorption spectrometry, and ion selective electrodes. The strategy was applied to five petroleum refinery streams: fugitive emissions from atmospheric crude distillation, aqueous condensate from an atmospheric crude still, effluent water from an API separator, tail gas from a sulfur recovery unit, and atmospheric emissions from a fluid catalytic cracking regenerator. Background data required to apply the strategy to these streams was acquired using published information on chemical composition and by application of engineering judgment. Costs were developed for the application of the sampling and analytical strategy using a modular approach. Total costs for the five streams, depending on options selected, ranged between $270,000 and $450,000. EPA CONTACT: Tucker, G. 8–629–2745

NEW REPORT ABSTRACTS SECTION

600/2–76–012b PE 1AB015 ROAP/TASK 21 AFH 025 CONTRACT NO. 68–02–1882

Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume II. Process Analysis of Petroleum Refinery Streams BY K. J. Bombaugh, E. C. Cavanaugh, J. C. Dickerman, S. L. Keil, T. P. Nelson, M. L. Owen, and D. D. Rosebrook, Radian Corporation Austin, TX

This volume of the report contains Appendix B, entitled: Process Analysis of Petroleum Refinery Streams. EPA CONTACT: Tucker, G. 8–629–2745

600/2–76–013a PE 1AB013 ROAP/TASK 21 ACX 130 CONTRACT NO. 68–02–1321

SO_2 Abatement for Stationary Sources in Japan BY J. Ando, Chuo University Tokyo, Japan BY G. A. Isaacs, PEDCO-Environmental Specialists, Inc. Cincinnati, OH

The report describes the status of desulfurization technology in Japan up to January 1975, with emphasis on the recovery of SO_2 in lime/limestone based processes. It discusses the current status of desulfurization technologies, including hydrodesulfurization of oil, decomposition of residual oil, gasification of coal and oil and flue gas desulfurization (FGD). Major Japanese FGD processes are examined in detail. Technical and economic aspects of the systems are discussed, and the processes are evaluated for potential U.S. application. Principal by-products of the various systems are discussed. The report also contains background information on energy usage, fuel resources, and projected pollutant abatement requirements in Japan. EPA CONTACT: Kaplan, N. 8–629–2915

600/2–76–013b PE 1AB014 ROAP/TASK 21 ACX 130 CONTRACT NO. 68–02–1321

NO_x Abatement for Stationary Sources in Japan BY J. Ando, and H. Tohata, Chuo University Tokyo, Japan, FC BY G. A. Isaacs, PEDCO-Environmental Specialists, Inc. Cincinnati, OH

The report summarizes regulations for NO_x abatement in Japan, describes techniques for abatement by means of combustion control, and analyzes in detail current wet and dry processes for denitrification of flue gases. The major fuel in Japan is heavy residual oil. Lesser amounts of coal are used. Natural gas usage is insignificant. Six different low-NO_x oil burner designs are discussed. Eleven major NO_x scrubber plants have been completed or are nearing completion. Descriptions of the major NO_x removal processes are included. The chemistry of NO_x liquid reactions is discussed as it applies to the various scrubber processes: advantages and disadvantages of the processes are listed. Ongoing research and development projects in Japan are also discussed. EPA CONTACT: Kaplan, N. 8–629–2915

600/2–76–014 PE 1AB014 ROAP/TASK 21 ADH 008 CONTRACT NO. 68–02–1323

Molecular Sieve Mercury Control Process in Chlor-Alkali Plants BY M. Y. Anastas, Battelle Columbus Laboratories Columbus, OH

The report gives results of an investigation of the use of the PuraSiv Hg adsorption process to remove mercury from the hydrogen byproduct stream and the end-box ventilation stream from mercury cell chlor-alkali plants. The investigation included the analysis of data obtained from testing of a system that is currently in operation and technical information provided by the system vendor together with that available in the open literature. Although the measurements of mercury concentration in the hydrogen byproduct stream entering the PuraSiv Hg adsorber, taken during performance testing of the control unit, appear to be in error, measurements of the outlet concentration indicate that a concentration less than 60 ppbv may be achieved. The economics of the PuraSiv Hg adsorption process were explored. Available data indicate that the operating costs by this process vary between $0.58 and $0.33 per ton of chlorine produced for plants with capacities between 100 and 750 tons per day. Mercury may also be removed from the hydrogen byproduct stream either by brine adsorption over treated activated carbon or by scrubbing with depleted brine. Technical and economic data available to the investigator seem to favor the use of these two processes for mercury control, although the data base thereon is not sufficiently developed to warrant a meaningful comparison. EPA CONTACT: Wooldridge, E. J. 8–629–2547

600/2–76–015 PE 1AB014 ROAP/TASK 21 ADH 008 CONTRACT NO. 68–02–1323

Molecular Sieve NO_x Control Process in Nitric Acid Plants BY H. S. Rosenberg, Battelle Columbus Laboratories Columbus, OH

The report gives results of an engineering analysis of the applicability of molecular sieve technology to the control of NO_x emissions from nitric acid plants. Field test data from a plant using this technology show that, after 6 months of operation, the plant still controls NO_x emissions to well within the New Source Performance Standard (NSPS) (1.5 kg of NO_x/metric ton of acid; equivalent to about 200 ppm NO_x in the tail gas). Field test data from a second plant, 10 months after start-up, show that NO_x emissions are below the NSPS, even though the sieve had been accidentally damaged. The process appears able to achieve an average effluent NO_x concentration of 50 ppm, based on tests at the former plant; however, this concentration was not achieved during the tests at the latter plant because of the damaged sieve. Although a 2-year sieve life has not been demonstrated, there is no reason to believe it cannot be achieved, and it appears that molecular sieve technology is technically feasible. The economic feasibility of molecular sieve technology for this application was assessed by comparing this technology with the catalytic reduction and extended absorption processes, both of which usually limit effluent NO_x concentration to only about 200 ppm. The capitalized cost for the molecular sieve process is higher than for catalytic reduction and lower than for extended absorption. EPA CONTACT: Wooldridge, E. J. 8–629–2547

NEW REPORT ABSTRACTS SECTION

600/2-76-016a PE 1AB604 CONTRACT NO. 68-01-2234

Abstracts of the 1971-1974 United States and Foreign Open Literature on Noise—Part I BY E. P. Bergmann, and I. B. Fieldhouse, IIT Research Institute Chicago, IL

This document is a task report of effort directed toward a search of the open literature to provide some insight into the noise reduction effort outside of the Federal Government and in foreign countries. Abstracts from the search covered the period 1971 to 1974. Two primary sources were searched for abstracts: The Engineers Index and Pollution Abstracts. Nearly 1300 abstracts from 21 countries were screened and segregated into the following categories: Aircraft Noise; Building Noise; General Interest; Machinery Noise; Noise Effects on Health; Noise Measurement Instrumentation; and Transportation Noise. The distribution of abstracts within each technical area is summarized in the report, and a compilation of the abstracts is presented as an appendix and bound separately. It appears that a substantial level of privately sponsored noise research and development is reflected in open literature publications. Industrial or private sponsorship is indicated in areas in which a regulation demands attention to the noise problem or a product relating to noise is being "advertised." Government sponsorship is indicated in the areas in which there is a potential benefit to the public. University sponsorship appears to be a small part of the total effort and is directed to particular academic interests. EPA CONTACT: Berkau, E. E. 8-684-4294

600/2-76-016b PE 1AB604 CONTRACT NO. 68-01-2234

Abstracts of the 1971-1974 United States and Foreign Open Literature on Noise—Part II BY E. P. Bergmann, and I. B. Fieldhouse, IIT Research Institute Chicago, IL

EPA-600/2-76-016b

This document is a task report of effort directed toward a search of the open literature to provide some insight into the noise reduction effort outside of the Federal Government and in foreign countries. Abstracts from the search covered the period 1971 to 1974. Two primary sources were searched for abstracts: The Engineers Index and Pollution Abstracts. Nearly 1300 abstracts from 21 countries were screened and segregated into the following categories: Aircraft Noise; Building Noise; General Interest; Machinery Noise; Noise Effects on Health; Noise Measurement Instrumentation; and Transportation Noise. The distribution of abstracts within each technical area is summarized in the report, and a compilation of the abstracts is presented as an appendix and bound separately. It appears that a substantial level of privately sponsored noise research and development is reflected in open literature publications. Industrial or private sponsorship is indicated in areas in which a regulation demands attention to the noise problem or a product relating to noise is being "advertised." Government sponsorship is indicated in the areas in which there is a potential benefit to the public. University sponsorship appears to be a small part of the total effort and is directed to particular academic interests. EPA CONTACT: Berkau, E. E. 8-684-4294

600/2-76-017 PE 1BB036 ROAP/TASK 21 AZQ 019 GRANT NO. 802753

Renovation of Industrial Inorganic Wastewater by Evaporation with Interface Enhancement BY H. H. Sephton, California, University of, Sea Water Conversion Laboratory Richmond, CA

A novel method of vertical tube evaporation (VTE) to improve heat transfer performance was applied to the concentration of three types of industrial wastewaters. This method, interface enhancement, relies upon the addition of a few parts per million of a selected surfactant to the wastewater feed followed by imposed two-phase foamy liquid-vapor flow over the heat transfer surfaces. Applied to the concentration of power plant cooling tower blowdown and boiler blowdown, interface-enhanced VTE provided an approximate 120 percent increase in the usual VTE heat transfer performance, using a 5,000 gpd pilot plant having double-fluted aluminum-brass distillation tubes, under process conditions that are realistic for large industrial plants. Acidic mine drainage water, concentrated by double-fluted titanium evaporator tubes provided about a 60 percent heat transfer performance enhancement. Beneficial side effects of the surfactant additive were to inhibit the crystallization of solutes, permitting concentration of the wastewaters to smaller volumes. This work indicates feasibility and improved economics for renovation-recycle of each of the three types of wastewater examined. Industrial feasibility demonstration projects for each of the three wastewater types examined are recommended. A method and flow diagram for the desalination-recycle of power plant cooling tower blowdown by interface-enhanced VTE integrated with typical power plant coolant cycle and utilizing waste heat from that cycle, is described and recommended. EPA CONTACT: Freeman, H. 8-684-4247

600/2-76-018 PE 1BB033 IN-HOUSE PROJECT

Interim Report on the Impact of Public Law 92-500 on Municipal Pollution Control Technology BY B. W. Lykins Jr., and J. M. Smith, Municipal Environmental Research Laboratory, EPA Cincinnati, OH

This report presents available information that is used to examine the impact of water quality required by Public Law 92-500 on the effluent quality discharged from publicly owned wastewater treatment plants and assesses the adequacy of existing technology to meet these requirements. The report also identifies effluent standards that are more stringent than the national minimum requirement for "secondary" treatment. A major effort was, therefore, devoted to reviewing state water quality standards, identifying all water quality limited stream segments within each state, and summarizing and evaluating concentrations of pollutants in municipal wastewater treatment plant effluents reported in the 1973 Needs Survey. A comparison of existing technology with projected needs indicates that some form of technology is available to achieve the required removal of suspended solids, nitrogen and phosphorus. However, development and demonstration of additional technology are needed to reduce BOD concentrations to the required limits and to provide alternate disinfection processes. EPA CONTACT: Lykins Jr., B. W. 8-684-7714

NEW REPORT ABSTRACTS SECTION

600/2-76-019 PE 1BB039 GRANT NO. 800426

Selected Irrigation Return Flow Quality Abstracts, 1974 BY G. V. Skogerboe, W. R. Walker, and S. W. Smith, Colorado State University Fort Collins, CO

Research related to the quality of irrigation return flow is being conducted at numerous institutions throughout the western United States. Related work is also underway at other institutions in the United States, as well as other portions of the world. Approximately 100 sources of material have been searched for articles pertinent to the National Irrigation Return Flow Research and Development Program. These articles described water quality problems resulting from irrigated agriculture, potential technological solutions for controlling return flows, recent research pertinent to return flow investigations, and literature associated with institutional constraints in irrigation return flow quality control. The first annual issue of SELECTED IRRIGATION RETURN FLOW QUALITY ABSTRACTS covered publications printed in 1968 and 1969, while the second annual issue lists publications printed in 1970 and 1971, and the third annual issue covers calendar years 1972 and 1973. This annual issue lists publications printed in 1974. EPA CONTACT: Law Jr., J. P.

600/2-76-020 PE 1AB012 GRANT NO. 801399-02

High-Velocity, High-Efficiency Aerosol Filtration BY D. Leith, S. N. Rudnick, and M. W. First, Harvard School of Public Health Boston, MA

The report gives results of bench- and pilot-scale studies of the dust collection characteristics of fabric filters. Techniques for measuring dust deposit porosity as a function of cloth characteristics and viltration velocity on a bench-scale filter have been developed and are described. A method for impregnating and slicing the dust deposit for examination under the electron microscope is also described. For the pulsejet pilot-scale filter, flyash pentration decreased as the dust deposit thickened, increased with increasing filtration velocity, and remained relatively constant for particles down to 0.30 micrometers diameter. Three dust emission mechanisms were investigated, using chemically tagged flyash. Penetration by straight-through dust loss falls off rapidly after cleaning, but later increases. Seepage of dust through the fabric was constant throughout the filtration cycle. Dust lost as pinhole plugs increased after cleaning, but later declined; however, the pinholes may open the way for further emission by the straight-through mechanism. Fabric cleaning was a problem in both the pulsejet and shaker cleaned filters during high velocity operation; redesign of commercial equipment is necessary. EPA CONTACT: Turner, J. 8-629-2925

600/2-76-021 PE 1AA010 GRANT NO. 802396

Electrochemical Analysis of Sulfidic and Amine Odorants BY J. N. Nwankwo, and A. Turk, New York, City College of New York, NY

Oxidation of odorous vapors at the anode of an electrochemical cell was studied as a promising approach to achieving instrumental analysis of odors. The technique of linear potential sweep cyclic voltammetry was used to investigate the oxidizability of several amines, sulfides, and their mixtures on platinum, gold, glassy-carbon, carbon paste, and graphite electrodes. Results of the analyses of individual amines showed that the ease of oxidation on a platinum electrolyte was: tertiary > secondary > parimary. Results for runs conducted on mixtures containing combinations of primary, secondary, and tertiary amines indicated that separate current peaks were not obtained from the various amines. Instead, a composite peak was obtained for any given mixture. Results for sulfides using a platinum electrode indicated that allyl sulfide, n-butyl sulfide and tert-butylsulfide could be oxidized in acetonitrile solution with 0.1 M $NaClO_4$ as supporting electrolyte. The order was: tert-butysulfide > n-butylsulfide > allysulfide. When amines and sulfides were mixed, a clear separation of the peaks was observed. The results indicate that it is possible to characterize a mixture of amines and sulfides by linear potential sweep cyclic voltammetry. EPA CONTACT: Nader, J. S. 8-629-2381

600/2-76-022 PE 1BB043 ROAP/TASK 21 ASB 008 GRANT NO. 17080 GCI

Apollo County Park Wastewater Reclamation Project – Antelope Valley, California BY H. T. Brandt, and R. E. Kuhns, Los Angeles, County of Los Angeles, CA

This report presents the results of a full scale demonstration project to confirm previous pilot studies and research done on the economics and feasibility of reclaiming wastewater for use at an aquatic park in a semi-arid area. The demonstration project included: (1) the construction of a 1900 m^3/day (0.5 mgd) tertiary wastewater treatment plant and a 22.7 ha (56 acre) park with recreational support facilities; and (2) the evaluation of the treatment system performance and the characteristics of the lake waters as they relate to chemical, physical, and biological quality, algal growth, plant growth, fish pathology, soil reclamation, and irrigation. The completed recreational park, officially named Apollo County Park after the Apollo 11 Capsule, attests of the economic benefits and social acceptability of wastewater renovation. The evaluation studies showed that tertiary treatment water is pathogenically safe, esthetically pleasing, suitable for fish life and aquatic sports, and acceptable for irrigational use. EPA CONTACT: English, J. N.

NEW REPORT ABSTRACTS SECTION

600/2–76–023 PE 1AB012 ROAP/TASK 21 ADM 012 IN-HOUSE PROJECT

Tentative Procedures for Particle Sizing in Process Streams— Cascade Impactors BY D. B. Harris, Industrial Environmental Research Laboratory, EPA Research Triangle Park, NC

The report, in guideline form, is an outgrowth of discussions by members of a working group of EPA/IERL-RTP personnel, contractors, and independent experts who met to develop uniform procedures for the field use of inertial impactors to determine particle size distributions from industrial particulate sources. It is intended to promote individual tests of similar quality so that valid comparisons may be made. It is emphasized that this document is for guidance only, and is not a set of rules. Techniques for measuring particle size in stationary sources are too new, and too few testing situations are the same. Professional judgment is still the most important element in successfully determining fractional efficiency. The report discusses the preliminary survey, the sampling apparatus, testing procedures, and data analysis. The information applies to cascade impactors in general. Specific commercial impactors are discussed. EPA CONTACT: Harris, D. B. 8–629–2557

600/2–76–024 PE 1BB392 ROAP/TASK 21 AZU 025 GRANT NO. 802853–01–

Reuse of Power Plant Desulfurization Waste Water BY L. J. Bornstein, R. B. Fling, F. D. Hess, R. C. Rossi, and J. Rossoff, Aerospace Corporation El Segundo, CA

The report gives results of an assessment of the potential reuse of liquor from nonregenerable flue gas desulfurization systems by applying available water treatment processes. Although scrubbers normally operate in a closed-loop mode, this study investigated liquor reuse if a scrubber purge became necessary as a result of off-design or other operating conditions. Chemical characterizations were performed on liquors from four different scrubbers; these were assessed for use as power plant service water or for direct discharge. Treatment is required for either use; but, in most cases (for economic reasons), treatment for discharge is not recommended. Chemical precipitation (e.g., lime-soda softening, filtration, and pH control) is adequate for most service water usage cases. Cases involving high chloride content in the purge liquor would require an additional treatment such as reverse osmosis, as would all cases for direct discharge. The applicabilities of available treatment systems are given, in addition to scrubber flow diagrams, water balance, and treatment costs for a range of liquor flow rates. EPA CONTACT: Roberts, F. 8–420–4715

600/2–76–025 PE 1BC611 IAG NO. IAG 40–191–69

Cross-flow Filtration in Physical-Chemical Treatment of Municipal Sewage Effluents BY H. A. Mahlman, W. G. Sisson, K. A. Kraus, and J. S. Johnson Jr., Oak Ridge National Laboratory Oak Ridge, TN

Cross-flow filtration was tested for separation of water from the effluent of primary or secondary treatment of municipal sewage, after addition of physical-chemical reagents. In this approach, the solution being filtered is pumped parallel to the filter, to slow buildup of flux-limiting filtercake. In most cases, the filtering surfaces were one-inch fabric tubes, manufactured as fire-hose jackets. Results are presented as functions of pressure, water recovery, circulation velocity, additive concentration and other variables. With Fe(III), Al(III), or powdered activated carbon (PAC) added to Oak Ridge primary sewage effluent, filtrate was superior in quality to effluent from activated sludge secondary treatment, and compared favorably with reported characteristics of sewage treated with similar reagents when solids-liquid separation was accomplished by settling. Turbidities were usually well below 1 JTU, and bacteria were substantially removed. With Fe(III), filtrate total organic carbon (TOC) typically was 10 to 15 mg/1, and phosphate below 1 mg/1. With PAC, TOC was lower, usually about 5 mg/1, but phosphate removal was poor. With Fe(III) at about 0.001 *M*, average fluxes of about 6 m/d (150 gpd/ft^2) appear attainable at 4.6 m/sec (15 ft/sec) circulation velocity with 24-hour backwash intervals. On this basis, we estimate filtrate cost for a 3,800 m^3/d (10^6 gpd) plant using Fe(III) of 12¢/m^3 (46¢/kgal). There are reasonable possibilities of lower costs. Fluxes and product characteristics are similar when feed is activated sludge secondary effluent, except that TOC is lower. EPA CONTACT: Schwartz, W. A. 8–684–7955

600/2–76–026 PE 1AA002 IAG NO. IAG-D4–0040

Effect of Gasoline Additives on Gaseous Emissions, Part II BY R. W. Hurn, F. Cox, and J. R. Allsap, Energy Research and Development Administration Bartlesville, OK

A study was been conducted to determine the effects of nitrogen-containing fuel additives in gasoline on regulated and nonregulated automotive emissions. Methodology was developed to measure possible nitrogencontaining compounds and was used to analyze the emissions from a variety of cars without catalysts. No effects due to the additives could be discerned. Of the nonregulated nitrogen compounds analyzed, ammonia, amines, nitriles, nitrosoamines, and aryl nitro compounds were not detected; HCN, cyanogen, and alkyl nitro compounds were measured. Emission data are included from a rotary engine (Mazda), an air cooled engine (Volkswagon), and two standard V-8 engines (Chevrolet and Ford). Six nitrogen containing additives chosen for their common usage were tested. EPA CONTACT: Sigsby Jr., J. E.

NEW REPORT ABSTRACTS SECTION

600/2–76–027 **PE 1BB610** **GRANT NO. WPRD 263–0**

Detection of Oil in Sewers BY D. H. Bock, and E. H. Eckert, Calspan Corporation Buffalo, NY

Methods capable of detecting oil present as a pollutant in waste water were selected which are capable of measuring quantities of oil from as small as those in a surface active film to massive accumulations. Detection techniques for both thick and thin oil deposits were studied and systems incorporating the most promising ones were developed and tested. It was found that more techniques can be adapted to the thick oil than to the thin oil detection problem because thick oil can be measured by electrical and thermal conductivity devices which require little maintenance in sewer use whereas detectors of small amounts are somewhat less suited to the sewer environment. The most promising techniques developed used RF and heat conductivity sensors for the detection of massive oil accumulations from a few millimeters to several meters thick and ultraviolet transmission sensors for the detection of dispersed oil over the range of 5 to 10,000 parts per million. The resulting instrumentation was tested in a sewer environment and found to be capable of unattended operation for periods ranging from a week to several months. The instrumentation was combined with telemetry to permit readout at a remote central location. EPA CONTACT: Keppler, R.

600/2–76–028 **PE 1BB610** **GRANT NO. WPRD 263–0**

Inverted Siphons for Oil Trapping BY R. C. Ziegler, R. E. Baier, and D. J. Schuring, Calspan Corporation Buffalo, NY

This report describes investigations of the oil trapping characteristics of inverted siphons as part of a demonstration program for preventing and eliminating oil pollution of the Buffalo River. An extensive study was made of the quantity and types of oil that accumulated in an inverted siphon located in the Buffalo sewer system at Memorial Drive and Gibson Street. Oil detectors developed under the program and their use for both automatic and manual measurement of accumulated oil depths are described. A telemetering system permitted oil data to be transmitted to a remote monitoring station located several miles from the siphon. The report discusses in detail the spectroscopic and chromatographic analyses of samples to characterize the nature of the trapped oils. Most of the trapped oil was of petroleum origin and was traced to spills of fuel oil at a nearby railroad terminal. The sampling program demonstrated that inverted siphons are nearly 100 percent effective for trapping surface oils and that the trapping efficiency for emulsified oil carried in the bulk water is extremely low. Described also are the results of tests made with 1/24 and 1/12 scale models of the Memorial Drive siphon based on both Froude and Reynolds scaling criteria. EPA CONTACT: Keppler, R.

600/2–76–029 **PE 1BB610** **GRANT NO. WPRD 263–0**

Program for Preventing and Eliminating Oil Pollution of the Buffalo River BY R. C. Ziegler, Calspan Corporation Buffalo, NY

This report summarizes work performed under a program for "Prevention and Elimination of Oil Pollution of the Buffalo River." This program included many analytical, design, experimental, and development subtasks. The design, fabrication, and field testing of a pneumatic barrier system was undertaken for restraining the flow of surface oil in the Buffalo River, and laboratory tests were performed to obtain performance data under extended flow conditions. An extensive sampling program to determine the distribution and characteristics of oil pollutants on the river was carried out and various oil sampling techniques were devised and evaluated. In-sewer instruments for detecting thin and thick surface oil films and oil in bulk water were designed, fabricated and tested in the Buffalo sewer system. A telemetering system relayed oil accumulation data to a central facility. Specifications for an oil and debris removal boat and its associate equipment were prepared. Methods were developed for evaluating oil skimmer performance. The oil trapping characteristics of inverted siphons were investigated. Various oil boom configurations were evaluated. EPA CONTACT: Keppler, R.

600/2–76–030 **PE 1BB610** **GRANT NO. WPRD 263–0**

Evaluation of a Pneumatic Barrier for Oil Containment BY J. M. Grace, Calspan Corporation Buffalo, NY

The investigation reported herein concerns the development and evaluation of a pneumatic barrier for restraining the natural flow of surface oils in the Buffalo River. The initial phase of this study involved laboratory experiments to evaluate the surface currents produced by bouyant airwater plumes which were formed by the injection of air through single and multiple orifices submerged below the water surface. Based upon the data obtained in the laboratory experiments, a full scale, prototype air barrier system was designed. This barrier system was built and installed in the river. A full scale test program was initiated in order to evaluate the performance of the barrier. Following the river test phase of the program, additional laboratory tests were conducted in a water channel facility to investigate the performance of a barrier system at higher currents and for different oil types than were available in the Buffalo River. It was determined that a pneumatic barrier could be an effective device for stopping the flow of surface oils for currents less than one foot per second. The actual limiting speed for a particular oil was a function of its viscosity and specific gravity. In no instance was any oil that was tested restrained in a current of more than 1.5 fps. EPA CONTACT: Keppler, R.

NEW REPORT ABSTRACTS SECTION

600/2-76-031 **PE 1B8610** **GRANT NO. WPRD 263-0**

Sampling and Identification of Pollutant Oils in Industrial Watercourses BY R. E. Baier, E. A. Gasiecki, R. P. Leonard, and E. J. Mack, Calspan Corporation Buffalo, NY

A thoroughly documented discussion of methods for sampling and identifying pollutant oils in industrial watercourses is presented. Simple, yet quantitative, methods for retrieval of oil slick specimens are described which are usable on all types of pollutant layers, ranging from near-zero thickness to inches in thickness, irrespective of their degree of weathering, emulsification, or admixture with debris. Techniques which fail in such situations are also described. An analytical scheme for the determination of organic pollutants in industrial waters by chloroform extraction (below pH 8) and carbon tetrachloride extraction (above pH 8) is demonstrated to be superior to more generally used hexane extraction techniques. Numerous examples illustrating the use of gas chromatography and infrared spectroscopy for pollution analysis are presented. Applications of the various analytical methods considered are discussed with specific reference to the correlation of oil slick components with pollutants in industrial outfalls; the evaluation of an inverted siphon sewer as an oil trap; the evaluation of an air barrier as a slick container; the evaluation of surface oil skimmers; and the identification of spilled oils for enforcement actions. The burden of oily pollutants entering and exiting the Buffalo River, and deposited along its shoreline and in its sediments, is estimated for the 1968–1970 period and compared with available data on the river water quality as early as 1964. EPA CONTACT: Keppler, R.

600/2-76-032a **PE 1AB015** **ROAP/TASK 21 AVA 003** **CONTRACT NO. 68-02-1874**

Source Assessment: Priorization of Stationary Air Pollution Sources—Model Description BY E. C. Eimutis, Monsanto Research Corporation Dayton, OH

The report describes a prioritization model for the rank-ordering of stationary air pollution sources. The source types were rank-ordered or prioritized by computing a relative environmental impact factor for each source type. A priority listing was developed for each of four categories: combustion, organic materials, inorganic materials, and open sources. The report also describes both the actual application of the model and the types of calculations that were performed depending upon the degree of input aggregation. The report also gives detailed examples of use, as well as results of sensitivity analyses, showing how the prioritization model responds to input changes. EPA CONTACT: Denny, D. A. 8-629-2547

600/2-76-032b **PE 1AB015** **CONTRACT NO. 68-02-1874**

Source Assessment: Flat Glass Manufacturing Plants BY R. B. Reznik, Monsanto Research Corporation Dayton, OH

The report describes a study of air emissions during the production of flat glass, SIC No. 3211. It covers raw materials preparation at the plant site, molten glass production in the melting furnace, and the forming of flat glass products. Melting furnace emissions account for over 99% of the total plant emissions: NO_x, SO_x, and particulates are the major (> 99%) pollutants. The particulates are alkali sulfates of submicron size. NO_x has the highest emission factor (4 g/kg) and annual emissions (16,000 metric tons). When national emissions of each pollutant from this industry are compared to the corresponding national emissions from all stationary sources, NO_x contributes 0.07% of the total. Source severity is a measure of the potential environmental effect of air emissions from this industry; it is defined as the ratio of the maximum average ground level concentration compared to the primary ambient air quality standard for criteria pollutants. The largest severity factors are for NO_x emissions from a 30 m stack ($S = 1.3$) and a 60 m stack ($S = 0.57$). Severities for SO_x and particulates are in the range 1.0–0.05. EPA CONTACT: Denny, D. A. 8-629-2547

600/2-76-032c **PE 1AB015** **CONTRACT NO. 68-02-1874**

Source Assessment: Fertilizer Mixing Plants BY G. D. Rawlings, and R. B. Reznik, Monsanto Research Corporation Dayton, OH

The report describes a study of air pollutants emitted by the mixed fertilizer industry, consisting of three types of mixing plants: ammoniation/granulation (A/G) (195 plants), bulk blend (5,640 plants), and liquid mix (2,768 plants). The potential environmental effect of this source was evaluated, using source severity (defined as the ratio of the maximum ground-level concentration of an emission to the ambient air quality standard for criteria pollutants or to a modified TLV for non-criteria pollutants). Source severity factors for particulate emissions from A/G, bulk blend, and liquid mix plants are 0.1, 0.14, and 0.01, respectively. Severity factors for ammonia from A/G and liquid mix plants are 0.26 and 0.01, respectively. A/G plants (excluding diammonium phosphate plants) produced 45% of all mixed fertilizers in 1973; bulk blend and liquid mix plants produced 32% and 23%, respectively. Primary emissions from A/G plants are NH3 and particulates. Only particulates are emitted from bulk blend plants. Primary emissions from liquid mix plants are NH3 and particulates. Each of the emission values (for each pollutant from each source) is less than 0.1% of the corresponding national emissions of that material from all stationary sources. EPA CONTACT: Denny, D. A. 8-629-2547

NEW REPORT ABSTRACTS SECTION

600/2-76-033 PE 1AA010 IN-HOUSE PROJECT

X-Ray Fluorescence Multispectrometer for Rapid Elemental Analysis of Particulate Pollutants BY J. Wagman, R. L. Bennett, and K. T. Knapp, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

A multichannel wavelength x-ray fluorescence spectrometer, specially adapted for rapid analysis of air pollution particulate samples, is described. The system contains an array of fixed-wavelength spectrometers optimized for simultaneous analysis of 16 preselected elements and a computer-operated scanning channel for the determination of any number of additional elements. A loading device permits automatic handling of batches of up to 100 frame-mounted 47 mm filter samples. Instrument operation, data processing, and printout of results are controlled by a minicomputer. The system permits rapid elemental analysis at high spectral resolution, a significant advantage with air pollution samples which typically contain several dozen elements at a wide range of concentrations. For samples deposited on membrane filters, 100-second detection limits are in the range of 2 to 40 ng/cm^2 for most elements of interest. EPA CONTACT: Wagman, J. 8-629-2216

600/2-76-034 PE 1AA010 CONTRACT NO. 68-02-1731

Development Strategy for Pollutant Dosimetry BY J. W. Harrison, P. A. Lawless, D. E. Gilbert, and J. H. White, Research Triangle Institute Research Triangle Park, NC

This report comprises the results of a study to: (1) define and place realistic limits upon the needs of epidemiologists for personal pollutant dosimeters; (2) identify pollutant-sensing principles that offer reasonable opportunity for early development of functioning dosimeters capable of operating with the limits of (1) above; (3) project the impact of mechanical and electronic miniaturization techniques upon each of the principal options disclosed in (2) above; (4) assess the cost/benefit aspects of active vs. passive sampling of the atmosphere, as applied to candidate sensors identified in (1), (2), and (3) above; (5) assess the advantages, if any, of a system's approach to dosimeter development, in which the design of a sensor for a given pollutant would be constrained to make maximum use of components and subassemblies common to sensors for other pollutants. The study reported on has been arbitrarily limited to consideration of devices applicable to the measurement of ozone, sulfur dioxide and nitrogen dioxide. The principles developed will apply in some degree to the eventual design of dosimeters for other pollutants. EPA CONTACT: O'Keeffe, A. E. 8-629-2206

600/2-76-035 PE 1AB012 ROAP/TASK 21 ADL 004 CONTRACT NO. 68-02-1316

Evaluation of Eight Novel Fine Particle Collection Devices BY D. W. Cooper, R. Wang, and D. P. Anderson, GCA Corporation Bedford, MA

The report summarizes IERL-RTP sponsored evaluations of eight novel control devices: Aeronetics Two-Phase Jet Scrubber, Braxton Sonic Agglomerator, Centrifield Scrubber (Entoleter Corp.), Cleanable High Efficiency Air Filter (CHEAF, Johns-Manville), Dynactor Scrubber (RP Industries), Lone Star Steel Steam Hydro Scrubber, Mystaire (Heat Systems-Ultrasonics, Inc.), and Pentapure Scrubber (Purity Corp.). For each device is given a description, potential applications, theory of operation, collection efficiency (as a function of particle size), power consumption, and waste disposal techniques. Methods are detailed for comparing collection efficiencies and costs. The general theory of collection in scrubbers and by high porosity filters is presented to indicate the important parameters and their influence on collection efficiency. EPA CONTACT: Harmon, D. 8-629-2925

600/2-76-036a PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: White Pine Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

600/2-76-036b PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Kennecott, Hayden, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

NEW REPORT ABSTRACTS SECTION

600/2-76-036c PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Kennecott, McGill, Copper Smelter BY I. J. Weisenberg, and J.C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

600/2-76-036d PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Kennecott, Hurley, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

600/2-76-036e PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Magma, San Manuel, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

600/2-76-036f PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Ajo, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

600/2-76-036g PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68-02-1405

Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Morenci, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8-629-2557

NEW REPORT ABSTRACTS SECTION

600/2–76–036h PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68–02–1405

Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Douglas, Cooper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8–629–2557

600/2–76–036i PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68–02–1405

Design and Operating Parameters for Emission Control Studies: ASARCO, El Paso, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8–629–2557

600/2–76–036j PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68–02–1405

Design and Operating Parameters for Emission Control Studies: ASARCO, Hayden, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8–629–2557

600/2–76–036k PE 1AB013 ROAP/TASK 21 ADC 061 CONTRACT NO. 68–02–1405

Design and Operating Parameters for Emission Control Studies: ASARCO, Tacoma, Copper Smelter BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA

The report gives background design data for a specific copper smelter. The data is sufficiently detailed to allow air pollution control system engineering studies to be conducted. These studies will be concerned primarily with lean SO_2 streams that currently are not being captured. Physical layout of the smelter and the surrounding area is presented, along with existing control equipment. Ductwork that would be considered for future system tie-in is defined. Emissions from operating equipment, gas flow rates, temperatures, sulfur balance, and a process flow sheet are included. Utilities, stack dimensions, footing requirements, and solid waste handling are defined. Available area for new control equipment, gas characteristic variation, and potential new control equipment installation problems are discussed. EPA CONTACT: Rovang, R. 8–629–2557

600/2–76–037 PE 1AB015 ROAP/TASK 21 AUZ 019 CONTRACT NO. 68–02–1318

Catalytic Oxidation of Fuels for NO_x Control from Area Sources BY J. P. Kesselring, R. A. Brown, R. J. Schrieber, and C. B. Moyer, Acurex Corporation Mountain View, CA

The report gives results of a review of the state-of-the-art of catalytic combustion concepts, and of an assessment of the applicability of catalytic combustion to gas- and oil-fired home heaters and commercial and industrial boilers. Newly developed high-temperature support materials will greatly enhance the field of high-temperature catalytic combustion, but current catalyst systems are limited by the catalyst coating to much lower temperatures than the supports. To keep combustor temperatures below those that would cause catalyst degradation, to achieve high system efficiency, and to prevent NO_x formation, combustion system concepts such as two-stage combustion, flue gas recirculation, and bed heat removal appear necessary. Application of these concepts to home furnaces appears feasible, but their application to larger size units may be more attractive because of their greater initial cost, generally more sophisticated controls, better supervision of equipment, and heat transfer characteristics. EPA CONTACT: Martin, B. 8–629–2235

NEW REPORT ABSTRACTS SECTION

600/2–76–038 PE 1AB014 ROAP/TASK 21 BCC 027 CONTRACT NO. 68–02–1819

Residential Oil Furnace System Optimization—Phase I BY L. P. Combs, and A. S. Okuda, Rockwell International Corporation Canoga Park, CA

The report gives results of an analytical and experimental investigation of technology for improving pollutant emission characteristics and thermal efficiency of residential oil furnaces. A digital computer model was programmed for cyclical (transient) thermal analyses of typical warm air oil furnaces; design features and operating conditions were varied parametrically to discern influences on thermal efficiency. Heat in the exhaust flue gases, found to be the major source of inefficiency, can best be reduced by burning the fuel with minimum excess air and by reducing the flue gas temperature, both within the practical constraints of emission production and cost. Furnace operability and pollutant emissions were studied experimentally by testing three burner types in several combustor sizes, configurations, and wall constructions (cooling methods). Tests showed that the optimized conventional burner in a larger-than-usual cooled combustor has the best potential for minimizing emissions and maximizing efficiency. Test results were incorporated into two conceptual designs for prototype low-emission units capable of satisfying program goals. One design, a warm air unit, was selected to be built and tested in Phase II. EPA CONTACT: Martin, B. 8–629–2235

600/2–76–039 PE 1AB014 ROAP/TASK 21 ADG 08 CONTRACT NO. 68–02–0635

Chemistry of Fuel Nitrogen Conversion to Nitrogen Oxides in Combustion BY A. E. Axworthy, G. R. Schneider, M. D. Shuman, and V. H. Dayan, Rockwell International Corporation Canoga Park, CA

The report gives results of an experimental and analytical investigation of chemical mechanisms involved in the conversion of fuel nitrogen to NO_x in combustion. The pyrolysis of fossil fuels and model fuel nitrogen compounds was investigated, droplet and particle combustion models were developed, and premixed flat-flame burner experiments were conducted to study the conversion of HCN and NH_3 to NO_x in lowpressure CH_4-O_2-Ar flames. Decomposition rates and products were measured in helium from 850 to 1100C for pyridine, benzonitrile, quinoline, and pyrrole; products were measured for six No. 6 fuel oils, one crude oil, and two coals. HCN was the major nitrogen-containing pyrolysis product; the amount formed increased with temperature. NH_3 was a minor product and little if any N_2 was formed. The burner experiments demonstrated that fuel NO forms relatively slowly above the luminous zone in the same region where CO is oxidized to CO_2 or later. Although HCN and NH_3 gave similar yields of NO, the NH_3 reacted very early in the flame front; most of the HCN survived the luminous zone and then reacted slowly. A mechanism was proposed in which fuel NO forms via the reaction: $O + NCO = NO + CO$. EPA CONTACT: Martin, B. 8–629–2235

600/2–76–040 PE 1AB012 ROAP/TASK 21 ADL 029 CONTRACT NO. 68–02–1324

Evaluation of Electrofluidized Bed BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO

The report gives results of an evaluation of the concept of using electrofluidized beds for fine particle collection. A simple model was developed to describe the interaction between an aerosol stream and the bed material. Overall collection efficiency of the device was theoretically predicted from single target efficiency values based on electrostatic and inertial forces. Maximum predicted overall collection efficiencies range from 96% for a 1 micron aerosol particle to 85% for a 0.5 micron aerosol particle, with collector bodies of size 100 micron, an availability factor of 0.1, and fluidization velocities of 0.5 ft/sec. An increase in fluidization velocity or a decrease in collector number density (i.e., larger collector bodies) diminishes the overall collection efficiency for the conditions used in this investigation. The performance of the electrofluidized bed depends upon the interaction of the electrostatic forces and bed dynamics. The inherent instability of solids flow patterns in gas-fluidized beds may limit the collection efficiency that can be achieved. EPA CONTACT: Drehmel, D. C. 8–629–2925

600/2–76–041 PE 1AB012 ROAP/TASK 21 ADL 029 CONTRACT NO. 68–02–1324

Evaluation of Electric Field Fabric Filtration BY M. P. Schrag, and L. J. Shannon, Midwest Research Institute Kansas City, MO

The report gives results of an evaluation of the potential usefulness of electrified fabric filters for industrial gas cleaning. Available theoretical and experimental information indicates that electric fields can improve the collection efficiency of fabric filters. However, the lack of an adequate data base on filter systems, representative of those used on industrial applications, precluded a firm judgment on whether electrified fabric filters will be adaptable to and useful for the control of emissions from industrial sources. EPA CONTACT: Drehmel, D. C. 8–629–2925

600/2–76–042 PE 1AB012 ROAP/TASK 21 ADM 034 CONTRACT NO. 68–02–1816

Particulate Control Mobile Test Units: First Year's Operation BY R. E. Opferkuch, Monsanto Research Corporation Dayton, OH

The report summarizes the first year of operation of EPA-owned mobile test units that are being used in the field to study the applicability of different control methods to the control of fine particulate emitted from a wide variety of sources. Two mobile units are described: a fabric filter (baghouse) and a wet scrubber. The latter includes two types: venturi and sieve tray. Results from the baghouse tests on a coalfired power plant indicate suitability of a baghouse, with woven glass bags, for control of dust from this type of source. Results from tests on a pulp mill lime recovery kiln show high dust removal efficiency; however, the associated high moisture content of the gases portends operating problems sufficient to indicate that a baghouse would be unsuitable for control of dust from this source. Operation of the mobile scrubber unit during the year was confined to startup testing and correction of mechanical and operating difficulties. EPA CONTACT: Harmon, D. 8–629–2925

NEW REPORT ABSTRACTS SECTION

600/2-76-043 **PE 1BB039** **GRANT NO. 803116-01-**

Modeling Pesticides and Nutrients on Agricultural Lands BY A. S. Donigian Jr., and N. H. Crawford, Hydrocomp, Inc. Palo Alto, CA

Modifications, testing, and further development of the Pesticide and Transport and Runoff (PTR) Model have produced the Agricultural Runoff Management (ARM) Model. The ARM Model simulates runoff, snow accumulation and melt, sediment loss, pesticide-soil interactions, and soil nutrient transformations on small agricultural watersheds. The report discusses the major modifications to and differences between the PTR and ARM Models. An energy-balance method of snow simulation, and a firstorder transformation approach to nutrient modeling are included. Due to lack of data, the nutrient model was not tested with observed data; testing and refinement are expected to begin in the near future. Instrumented watersheds in Georgia provided data for testing and refinement of the runoff, sediment and pesticide portions of the ARM Model. Comparison of simulated and recorded values indicated good agreement for runoff and sediment loss, and fair to good agreement for pesticide loss. Pesticides transported only by sediment particles were simulated considerably better than pesticides that move both in solution and on sediment. A sensitivity analysis of the ARM Model parameters demonstrated that soil moisture and infiltration, land surface sediment transport, pesticidesoil interactions, and pesticide degradation are the critical mechanisms in simulating pesticide loss from agricultural watersheds. EPA CONTACT: Bailey, G. W.

600/2-76-044a **PE 1AB013** **CONTRACT NO. 68-02-1308**

Energy Supply, Demand/Need, and the Gaps Between: Volume I – An Overview BY J. W. Meyer, W. J. Jones, and M. M. Kessler, Massachusetts Institute of Technology Cambridge, MA

The report summarizes a critical review of selected literature pertaining to energy supply, demand, supply/demand imbalances, and the operational/technological developments needed to redress imbalances. Fuel shortage crises have been recurrent in man's history; e.g., wood fuel in the early 17th century, and whale oil during the Civil War. Energy demand soared in the U.S. over the last two decades because real energy prices dropped; energy was substituted for labor and material which were costing more. Now we have material and energy shortages, as well as massive unemployment. There is little agreement regarding our future supply of fossil fuels and no consensus on how best to reduce demand. History shows that the imbalance will be resolved. We must ensure that the resolution occurs with the lowest possible social and environmental cost. Price can resolve the imbalance; but, because price does not often reflect all costs, it can be very disruptive. Alternatives must be developed and options broadened. Opportunities for conservation should not be overlooked, for the marginal barrel of oil saved is of greater value than the marginal barrel of new production. Volume I is an overview; Volume II contains working papers and monographs which discuss certain aspects of the review more broadly. EPA CONTACT: Smith, J. O. 8-629-2921

600/2-76-044b **PE 1AB013** **CONTRACT NO. 68-02-1308**

Energy Supply, Demand/Need, and the Gaps Between: Volume II – Monographs and Working Papers BY J. W. Meyer, W. J. Jones, and M. M. Kessler, Massachusetts Institute of Technology Cambridge, MA

The report summarizes a critical review of selected literature pertaining to energy supply, demand, supply/demand imbalances, and the operational/technological developments needed to redress imbalances. Fuel shortage crises have been recurrent in man's history; e.g., wood fuel in the early 17th century, and whale oil during the Civil War. Energy demand soared in the U.S. over the last two decades because real energy prices dropped; energy was substituted for labor and material which were costing more. Now we have material and energy shortages, as well as massive unemployment. There is little agreement regarding our future supply of fossil fuels and no consensus on how best to reduce demand. History shows that the imbalance will be resolved. We must ensure that the resolution occurs with the lowest possible social and environmental cost. Price can resolve the imbalance; but, because price does not often reflect all costs, it can be very disruptive. Alternatives must be developed and options broadened. Opportunities for conservation should not be overlooked, for the marginal barrel of oil saved is of greater value than the marginal barrel of new production. Volume I is an overview; Volume II contains working papers and monographs which discuss certain aspects of the review more broadly. EPA CONTACT: Smith, J. O. 8-629-2921

600/2-76-045 **PE 1BB036** **GRANT NO. 802684**

Elimination of Washer Slimes from the Production of Phosphate Chemicals BY R. C. Cannon, R. S. Ribas, J. D. Nickerson, and R. A. Weisback, U.S. Steel Corporation Decatur, GA

The report gives results of laboratory studies to determine the feasibility of a new phosphoric acid process involving dry mining of the matrix, calcination, and digestion with phosphoric/sulfuric acid mixtures (five types of Florida phosphate matrices were used). Process steps included upgrading the matrix by dry methods, calcination in a static bed, and digestion comparable to commercial dihydrate processes. The matrix samples were upgraded by removing clay by selective grinding and air classification, and by separation of the sand fraction electrostatically. Typical clay removal values were 80–90% at a phosphate loss of 15–25%. Calcination produced an acceptable phosphoric acid from good quality matrix, but failed to reject metal impurities sufficiently to permit processing of poor-to-average matrix. Calcination eliminated the interference of clay in the digestion and filtration steps. Addition of mineralizers had only marginal effect on metal solubility. EPA CONTACT: Swank, R. R.

NEW REPORT ABSTRACTS SECTION

600/2-76-046a **PE EHB525** **CONTRACT NO. 68-02-1316**

Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume I – Executive Summary BY N. Surprenant, R. Hall, and L. M. Seale, GCA Corporation Bedford, MA

The report gives results of a preliminary emissions assessment of the air, water, and solid waste pollutants produced by conventional stationary combustion systems. It summarizes results in four principal categories: utilities (electric generation), industrial (steam generation, space heating, and stationary engines), commercial/institutional (space heating and stationary engines), and residential (space heating). For each principal combustion system category, it summarizes: process types and operating efficiencies, fuel consumption, pollutant sources and characteristics, major research and development trends, fuel consumption trends, and technical areas where emission data are incomplete. It also summarizes the pollutant emissions from applicable unit operations for each of 56 source classifications, using a uniform combustion source classification system. EPA CONTACT: Venezia, R. A. 8-629-2547

600/2-76-046b **PE EHB525** **CONTRACT NO. 68-02-1316**

Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume II – Final Report BY N. Surprenant, R. Hall, S. Slater, T. Susa, M. Sussman, and C. Young, GCA Corporation Bedford, MA

The report gives results of a preliminary emissions assessment of the air, water, and solid waste pollutants produced by conventional stationary combustion systems. It gives results in four principal categories: utilities (electric generation), industrial (steam generation, space heating, and stationary engines), commercial/institutional (space heating and stationary engines), and residential (space heating). For each principal combustion system category, it gives: process types and operating efficiencies, fuel consumption, pollutant sources and characteristics, major research and development trends, fuel consumption trends, and technical areas where emission data are incomplete or unreliable. It also gives the pollutant emissions from applicable unit operations for each of 56 source classifications, using a uniform combustion source classification system. It identifies major gaps in available data regarding the population and capacity of combustion systems, application of control measures, fuel composition, and other parameters which significantly influence pollutant characteristics and emission rates. EPA CONTACT: Venezia, R. A. 8-629-2547

600/2-76-047 **PE 1AB014** **CONTRACT NO. 68-02-1401**

Molecular Sieve Tests for Control of Sulfuric Acid Plant Emissions BY K. R. Boldt, and R. F. Timmons, York Research Corporation Stamford, CT

The report gives results of tests of a molecular sieve control system for sulfuric acid plant tail gas. The system, the PuraSiv S, was developed by Union Carbide Corporation and is now operating at the Coulton Chemical Corporation's plant in Oregon, Ohio. The PuraSiv S utilizes a molecular sieve adsorbent material that releases SO_2 when heat is applied. The SO_2 is recycled for an additional 2-3% production of acid. The report evaluates the PuraSiv S, using data gathered during a 4-week test period. SO_2 concentrations were continuously measured and recorded by a DuPont 460/1 Photometric Gas Analyzer at both the inlet and outlet gas streams. Average removal efficiency was 98.0%. Average SO_2 emissions during the tests were below 100 ppm. EPA CONTACT: Wooldridge, E. J. 8-629-2547

600/2-76-048a **PE 1AB015** **CONTRACT NO. 68-02-1406**

Molecular Sieve Tests for Control of NO_x Emissions from a Nitric Acid Plant; Volume I BY J. T. Chehaske, and J. S. Greenburg, Engineering Science, Inc. McLean, VA

The report gives results of performance testing for NO_x emission control on Union Carbide's PuraSiv N unit, now controlling emissions from the tail gas stream of the ammonia oxidation nitric acid production facility of Hercules, Inc. in Bessemer, Alabama. Simultaneous measurements of NO_2/NO_x concentrations were performed in the PuraSiv N inlet and outlet streams during 11 individual 4-hour adsorption cycles, using continuous photometric analyzers. NO_x concentrations were also measured at the test sites, using the EPA Method 7 reference procedure, to provide comparative data. Total NO_x mass loading to the sieve was variable from cycle to cycle, ranging from 63,370 to 251,800 grams, reported as NO_2. Average efficiency of the control unit for the cycles tested ranged from 98.68 to 95.92%. The integrated average concentrations of NO_x emitted over the complete cycles ranged from 17 to 154 ppm. EPA CONTACT: Wooldridge, E. J. 8-629-2547

600/2-76-048b **PE 1AB015** **CONTRACT NO. 68-02-1406**

Molecular Sieve Tests for Control of NO Emissions From A Nitric Acid Plant; Volume II—Appendices BY J. T. Chehaske, and J. S. Greenburg, Engineering Science, Inc. McLean, VA

The report gives results of performance testing for NO_x emission control on Union Carbide's PuraSiv N unit, now controlling emissions from the tail gas stream of the ammonia oxidation nitric acid production facility of Hercules, Inc. in Bessemer, Alabama. Simultaneous measurements of NO_2/NO_x concentrations were performed in the PuraSiv N inlet and outlet streams during 11 individual 4-hour adsorption cycles, using continuous photometric analyzers. NO_x concentrations were also measured at the test sites, using the EPA Method 7 reference procedure, to provide comparative data. Total NO_x mass loading to the sieve was variable from cycle to cycle, ranging from 63,370 to 251,800 grams, reported as NO_2. Average efficiency of the control unit for the cycles tested ranged from 98.68 to 95.92%. The integrated average concentrations of NO_x emitted over the complete cycles ranged from 17 to 154 ppm. EPA CONTACT: Wooldridge, E. J. 8-629-2547

NEW REPORT ABSTRACTS SECTION

600/2-76-049a PE 1AB013 CONTRACT NO. 68-02-1319

Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume I BY R. M. Wells, and W. E. Corbett, Radian Corporation Austin, TX

The report gives results of an examination of technical and environmental incentives for increased electrification in stationary use sectors. It compares the impacts which result from the production and consumption of equivalent quantities of natural gas, fuel oil, and electricity. It also examines several alternative methods of producing each end-use fuel and considers technical and economic barriers to increased electrification. It concludes that incentives for increased electrification are associated with the potential of this technique to reduce fossil fuel demands per se since direct consumption of fossil fuels appears to be more attractive from an energy efficiency and an environmental impact viewpoint. Most of the natural gas and distillate fuel oil consumed in the U.S. is in the residential, commercial, and industrial sectors. Currently experienced shortages of these clean premium fuels are providing incentives for the development of new energy sources for these markets. Among apparent alternatives are increased exploration for new sources of oil and gas, and production of clean synthetic fuels from the more abundant (but less environmentally attractive) fossil fuels such as coal or oil shale. Increased use of electrical energy is another option for satisfying future stationary sector energy demands. EPA CONTACT: Steen, W. B. 8-629-2825

600/2-76-049b PE 1AB013 CONTRACT NO. 68-02-1319

Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume II—Appendix BY R. M. Wells, and W. E. Corbett, Radian Corporation Austin, TX

The report gives results of an examination of technical and environmental incentives for increased electrification in stationary use sectors. It compares the impacts which result from the production and consumption of equivalent quantities of natural gas, fuel oil, and electricity. It also examines several alternative methods of producing each end-use fuel and considers technical and economic barriers to increased electrification. It concludes that incentives for increased electrification are associated with the potential of this technique to reduce fossil fuel demands per se since direct consumption of fossil fuels appears to be more attractive from an energy efficiency and an environmental impact viewpoint. Most of the natural gas and distillate fuel oil consumed in the U.S. is in the residential, commercial, and industrial sectors. Currently experienced shortages of these clean premium fuels are providing incentives for the development of new energy sources for these markets. Among apparent alternatives are increased exploration for new sources of oil and gas, and production of clean synthetic fuels from the more abundant (but less environmentally attractive) fossil fuels such as coal or oil shale. Increased use of electrical energy is another option for satisfying future stationary sector energy demands. EPA CONTACT: Steen, W. B. 8-629-2825

600/2-76-050 PE 1BB392 ROAP/TASK 21 AZU 019 CONTRACT NO. 68-03-0430

Economic Assessment of Backfitting Power Plants with ClosedCycle Cooling Systems BY A. R. Giaquinta, T. E. Croley II, V. C. Patel, J. G. Melville, M. S. Cheng, and A. S. Uzuner, Iowa, University of Iowa City, IA

The report gives in detail a method for assessing the economic consequences of backfitting electric power plants (currently operating an opencycle or once-through cooling systems) with conventional closed-cycle cooling systems. Four types of closed-cycle systems were investigated: mechanical- and natural-draft crossflow wet cooling towers, cooling ponds, and spray canals. To estimate operational penalties associates with backfitting, thermodynamic models were used to reproduce the operating characteristics of different types of turbines, condensers, and cooling systems. Capital and operating cost information was compiled and used, in conjunction with the levelized annual cost accounting method, to evaluate the total differential cost of power production resulting from the backfit. Computer programs were developed and are presented. Many representative calculations were performed and are presented graphically. The results for three types of conventional turbines and four geographical sites were obtained for a range of cooling system sizes: they are plotted visually. Once the various unit costs of replacement capacity, energy loss, fuel, and water are known, these results can be used to evaluate the cost to be assessed against backfitting. Representative unit cost values are included in the report. EPA CONTACT: Chasse, J. P.

600/2-76-051a PE 1AB015 CONTRACT NO. 68-02-1319

Environmental Catalog of Industrial Processes; Volume I—Oil/ Gas Production Petroleum Refining, Carbon Black, and Basic Petrochemicals BY T. Parsons, Radian Corporation Austin, TX

The catalog was developed to aid in defining the environmental impacts of U.S. industrial activity. Entries for each industry are in consistent format and form separate chapters of the catalog. Oil and Gas Industry activities include: exploration and site preparation, well drilling and completion, crude and natural gas processing, and secondary and tertiary recovery (20 process descriptions are included for locating, retrieving, and processing the oil and gas for refinery or consumer use). The Petroleum Refining Industry activities include: converting crude oil from the oil and gas production industry into many petroleum products and end with storage of the refined product (32 processes are described for the required conversion). Four process descriptions are included for the Carbon Black Industry, identifying its activities in processing hydrocarbon feedstocks to form finely divided carbon particles. The Basic Petrochemicals Industry involved producing feedstocks for the organic chemicals industry from product streams of petroleum refineries, natural gas processing plants, and condensate plants (four basic processes are described and included on a process flow chart to define the industry's operations). EPA CONTACT: Tucker, G.

NEW REPORT ABSTRACTS SECTION

600/2-76-051b **PE 1AB015** **CONTRACT NO. 68-02-1319**

Environmental Catalog of Industrial Processes; Volume II— Industrial Organic Chemicals BY T. Parsons, Radian Corporation Austin, TX

The catalog was developed to aid in defining the environmental impacts of U.S. industrial activity. Entries for each industry are in consistent format and form separate chapters of the catalog. The complex Industrial Organic Chemicals Industry generally uses products of the basic petrochemicals industry to produce raw materials used by other industries in preparing consumer goods. This industry is explained, using approximately 350 process descriptions. Ten chemical trees are included which illustrate the use of 11 feedstocks (methane, ethylene, propylene, paraffins, xylenes, toluenes, napthalenes, benzene, butylenes, cresols, and cresylic acid) to manufacture many different organic chemical products. EPA CONTACT: Tucker, G.

600/2-76-051c **PE 1AB015** **CONTRACT NO. 68-02-1319**

Environmental Catalog of Industrial Processes; Volume III— Organic Dyes/Pigments and Pesticides BY T. Parsons, Radian Corporation Austin, TX

The catalog was developed to aid in defining the environmental impacts of U.S. industrial activity. Entries for each industry are in consistent format and form separate chapters of the catalog. The Organic Dyes and Pigments Industry involves producing dyes and pigments from purchased organic chemicals which usually are converted into intermediate compounds before the dyes can be made. (Organic colored product manufacturing is summarized in 48 process descriptions, including 42 chemical diagrams of synthesis of intermediate compounds and 34 process flow charts.) The Pesticides Industry produces organic chemicals used in agriculture to: control insects, fungus, plants, and rodents; to disinfect and condition soil; and to stimulate plant growth. Excluding inorganic chemicals, petroleum products, and creosite, pesticides included in this industry are: simple and aromatic chlorinated, diene-based chlorinated, organophosphate, carbamate, triazine, anilide, urea and uracil, nitrated hydrocarbon, other nitrogenous, organo-arsenic and organo-metallic, and microbial and natural-occurring. (described are 37 processes; flow charts, chemical trees, and synthesis diagrams are included.) EPA CONTACT: Tucker, G.

600/2-76-051e **PE 1AB015** **CONTRACT NO. 68-02-1319**

Environmental Catalog of Industrial Processes; Volume V— Brine/Evaporite Chemicals, Fluorocarbon/Hydrogen Fluoride, and Gypsum/Wallboard BY T. Parsons, Radian Corporation Austin, TX

The catalog was developed to aid in defining the environmental impacts of U.S. industrial activity. Entries for each industry are in consistent format and form separate chapters of the catalog. The Brine and Evaporite Chemicals Industry encompasses 1st-level inorganic compounds derived from subterranean brines, from existing or historic salt lakes, and from seawater; it includes 2nd-level compounds only as produced at the same facilities (69 process descriptions and 22 flow charts define the operations involved in making 78 end products). In the Fluorocarbon/ Hydrogen Fluoride Industry, hydrogen fluoride produced from fluorspar is reacted with raw materials (usually chlorocarbons) to form organo-fluoro compounds (operations are described in 24 process descriptions, 14 process flow charts, and a chemical tree). The Gypsum and Wallboard Industry includes the production of calcined and uncalcined gypsum and various gypsum-core board products from gypsum deposits (describing the operations are nine process descriptions, a product tree, and a process flow chart). EPA CONTACT: Tucker, G.

600/2-76-051g **PE 1AB015** **CONTRACT NO. 68-02-1319**

Environmental Catalog of Industrial Processes; Volume VII— Iron and Steel, Primary Aluminum, and Titanium BY T. Parsons, and G. Wilkins, Radian Corporation Austin, TX

The catalog was developed to aid in defining the environmental impacts of U.S. industrial activity. Entries for each industry are in consistent format and form separate chapters of the catalog. The Iron and Steel Industry consists of: pig iron production, steel manufacturing, coke production, and coke by-products recovery (4 process flowsheets and about 30 process descriptions define the industry's activities in making fabricated iron and steel products from iron ore). The Primary Aluminum Industry is divided into: bauxite processing, electrode preparation, and aluminum production; it encompasses all operations involved in producing alumina from bauxite ore and in producing aluminum from alumina (3 process flowsheets and 9 process descriptions are included). The Titanium Industry produces titanium metal and titanium dioxide, which are the basis for dividing the industry into its segments (process flowsheets are included for each segment and 11 processes summarize the industry's activities). EPA CONTACT: Tucker, G.

NEW REPORT ABSTRACTS SECTION

600/2-76-052 **PE 1AB012** **CONTRACT NO. 68-02-1318**

Impact of Clean Fuels Combustion on Primary Particulate Emissions From Stationary Sources Aerotherm/Acurex Corporation Mountain View, CA

The report gives results of an examination of various coal conversion processes proposed for sulfur removal, to determine the implications for particulate removal requirements when the converted fuels are burned. A substantial increase in the near future is foreseen for the use of highsulfur coal for large scale steam raising. A major reduction in SO_2 emissions from those sources will be required to meet state and federal standards, either by desulfurizing the fuel or by removing SO_2 from the flue gas. Limited information is available on the combustion of synthetic fuels but, based on the data obtained and the nature of the fuels, little problem is foreseen in meeting effluent requirements for particulates. Other factors upstream of the combustion of those fuels (e.g., turbine blade erosion or methanation catalyst poisoning) seem more likely to determine particulate removal requirements. The costs of sulfur removal by flue gas desulfurization (FGD) were examined briefly. The cost savings potentially obtained by elimination of effluent particulate control systems with synthetic fuels were insignificant in affecting the substantial cost advantage of FGD versus fuel conversion. EPA CONTACT: Johnson, G. L. 8-629-2815

600/2-76-053 **PE 1AB015** **ROAP/TASK 21 AXM 020 CONTRACT NO. 68-02-1835**

Hydrocarbon Emissions Reduction From Ethylene Dichloride Processes BY W. S. Amato, B. Bandyopadhyay, B. E. Kurtz, and R. H. Fitch, Allied Chemical Corporation Solvay, NY

The report gives results of the initial phase of the development of a low-emissions ethylene oxyhydrochlorination process for producing 1,2-dichloroethane (ehtylene dichloride). First, experimental work on an existing pilot-plant-scale, once-through process was used both to obtain baseline emission data in mass of hydrocarbon (HC) plus ethylene dichloride (EDC) per mass of HCl fed as a function of reactor temperature and percent excess ethylene to the reactor, and to resolve potential problems which may arise in a recycle operation. Second, the existing once-through pilot plant was converted to a recycle operation which then functioned successfully and yielded emission data in mass of HC plus EDC per mass of HCl fed as a function of reactor temperature and percent excess ethylene to the reactor. In particular, the project objective of reducing by 90% the HC plus EDC emissions from an ethylene oxyhydrochlorination process, through the recycling of reactor off-gases, was positively demonstrated. Third, various operating difficulties were assessed which would be important for future control applications and scale-up efforts. Economic analyses are presented to demonstrate the competitive position of the improved process. EPA CONTACT: Baker, K. 8-629-2547

600/2-76-054 **PE 1AB015** **CONTRACT NO. 68-02-1323**

Control of Steel Plant Scarfing Emissions Using Wet Electrostatic Precipitators BY J. Varga Jr., Battelle-Columbus Laboratories Columbus, OH

The report discusses the purpose of scarfing slabs, blooms, and billets, as an introduction to a discussion of the control of emissions from steel plant scarfing machines. Some technical design information pertaining to wet electrostatic precipitators is presented, as is the limited amount of information available on the characteristics of scarfing emissions. Operating characteristics are given for several electrostatic precipitators presently in operation in scarfing applications. The report responds to Item AM-5-1 of the Protocol of the First Working Meeting of the U.S./USSR Task Force on Abatement of Air Pollution from the Iron and Steel Industry. EPA CONTACT: McCrillis, R. C. 8-629-2557

600/2-76-055 **PE 1AB012** **CONTRACT NO. 68-02-1316**

Evaluation of Electrostatic Augmentation for Fine Particle Control BY D. W. Cooper, and M. T. Rei, GCA Corporation Bedford, MA

The report reviews electrostatic augmentation of control devices for fine particulate: the addition of electrical forces to scrubbing and filtration and the enhancement of electrostatic precipitation. It gives the major electrostatic force equations and their evaluation for some reasonable values of particle and collector charge and geometry. It includes a bibliography on electrostatic augmentation. It analyses the following programs on electrostatic augmentation of filters, scrubbers, and electrostatic precipitators: fiber beds used to capture particles electrostatically, dust/fabric electrostatic effects, electric fields applied across filters or generated within filters, a collector using oppositely charged particles and droplets, a charged droplet scrubber (accelerates droplets electrostatically and uses them to transfer charge to particles for electrostatic precipitation), various polarities and configurations for charged droplet scrubbing of charged particles, nuclear radiation used to charge particles for electrostatic precipitation, various configurations and uses for an electric curtain, and improvement of particle-charging in connection with precharging chambers. Other research in electrostatic augmentation, especially on filters, is discussed briefly. Analysis of two other possible systems is presented: an electrostatically augmented cyclone and a foam scrubber that uses particle precharging. EPA CONTACT: Drehmel, D. C. 8-629-2925

NEW REPORT ABSTRACTS SECTION

600/2–76–056 **PE EHB527** **CONTRACT NO. 68–02–1323**

Comparison of Fossil and Wood Fuels BY E. H. Hall, C. M. Allen, D. A. Ball, J. E. Burch, H. N. Conkle, W. T. Lawhon, T. J. Thomas, and G. R. Smithson Jr., Battelle Columbus Laboratories Columbus, OH

The report gives results of a preliminary assessment, comparing the use of wood as a fuel for a commercial electric power plant in Vermont, with that of clean fossil fuels or fossil fuels with suitable pollution control technology. For the study, wood fuel was derived from forest surplus; i.e., the tops and branches of trees cut for commercial purposes, cull or noncommercial trees, and waste from forest products industries. The comparison considered boiler technology, pollutant emissions, control technology, energy balance, environmental/ecological impact, and cost. Conclusions included: the use of forest surplus and waste wood is technically feasible, pollutant emissions are controllable, net energy balances are favorable, the preliminary estimated cost is competitive, with proper forest management, there is potentially a net benefit to the ecology of Vermont's forest ecosystems, wood is a renewable resource, and a demonstration is recommended to advance the concept toward commercial application. Because wood is a competitive fuel, a cursory study was made, showing the concept to be applicable to other regions of the country for incremental electric power generation capacity. EPA CONTACT: Kilgroe, J. D.

600/2–76–057 **PE 1AB013** **CONTRACT NO. 68–02–1831**

Carbon Oxidation Catalyst Mechanism Study for Fuel Cells BY Y. C. Pan, Exxon Research and Engineering Company Linden, NJ

The report gives results of a systematic examination of the polarization curves of oxygen reduction reaction on graphite, using a rotating diskring electrode. The reaction was studied in various electrolytes over a pH range of 14.6–1 and a temperature range of 25–75C. The activity of this reaction was found to increase with decreasing $H^{(+)}$ concentration and increasing temperature. A linear relationship was found between the half-wave potential and pH value, with a slope of 40 mV per decade. The plot ring current ratio versus the square root of angular speed in KOH solution clearly indicated a reaction sequence of: $O_2 + 2H^{(-)}$ yields $2e + H2O_2$ which yields $2e + 2OH^{(-)}$. No 4-electron reduction of oxygen on carbon occurred. The level of carbon oxidation was higher in more acidic medium. EPA CONTACT: Bunas, S. J.

600/2–76–058 **PE 1BB034** **CONTRACT NO. 68–03–0499**

Future Direction of Urban Water Models BY M. B. Sonnen, L. A. Roesner, and R. P. Shubinski, Water Resources Engineers, Inc. Walnut Creek, CA

The state-of-the-art of urban water modeling since 1968 was reviewed. Urban water subsystems addressed were: rainfall, runoff, and snowmelt; urban watersheds; water supply; water distribution facilities; water use; waste collection and conveyance; waste treatment; receiving waters; and water reuse. Future urban water models were suggested from 1) the review and 2) demonstrated needs for additional problem solving capabilities. A phased model implementation program for the EPA's Storm and Combined Sewer Section was suggested. Contains 161 references. EPA CONTACT: Fan, C. Y.

600/2–76–059 **PE 6NA442** **ROAP/TASK 21 BDM 05** **CONTRACT NO. 68–02–1660**

Comparison of Wet Chemical and Instrumental Methods for Measuring Airborne Sulfate – Interim Report BY B. R. Appel, E. L. Kothny, E. M. Hoffer, and J. J. Wesolowski, California Department of Health Berkeley, CA

Four techniques for determination of water soluble sulfate in atmospheric samples were compared including the barium sulfate turbidimetric method, the Brosset (barium-Thorin) method, the automated bariummethylthymol blue procedure and a microchemical (barium-dinitro-sulfanazo III) colorimetric method developed at the Air and Industrial Hygiene Laboratory. These, in turn, were compared to x-ray fluorescence for determination of total sulfur, obtained independently at the Environmental Protection Agency's Research Triangle Park Laboratory. The parameters studied included precision and accuracy employing standard solution and ambient air samples, and the influence of twelve potential interferents. The ambient air samples studied were collected at different locations throughout the U.S. so that the influence of different particle matrices could be evaluated. As supplementary objectives, analyses of particulate matter samples collected simultaneously on high volume and low volume glass-fiber filters and low volume Teflon filters, with and without size segregation, were compared. Results of the study are presented. EPA CONTACT: Sawicki, C. R. 8–629–2185

600/2–76–060 **PE 1BB036** **GRANT NO. 800929**

Hyperfiltration for Renovation of Textile Finishing Plant Wastewater BY C. A. Brandon, and J. J. Porter, Riegel Textile Corporation LaFrance, SC

The report gives results of experimental work showing that wastewater from a textile [illegible] and finishing operation can be recycled. The wastewater was run through a set of hyperfiltration membranes, which separated it into purified water and a very concentrated dye residue fraction. Over the 15-month evaluation, up to 90% of the wastewater was recovered and was found to be a satisfactory substitute for the normal water supply in all parts of the dyeing operation. A total of 1,348 meters of first quality fabric was produced during this period. The concentrated dye residue can also be used to dye fabric in the dyeing operation. The cost of recycling the wastewater was projected to be $0.121 per cubic meter of wastewater. However, reusing the wastewater results in a potential savings of $0.234 per cubic meter, offsetting the operating cost. The textile industry presents an excellent opportunity for recycling industrial wastewater after treatment with hyperfiltration membranes. The direct recycle will achieve pollution abatement with significant reduction in operating costs brought about by savings in water, chemicals, and energy. Results are being studied further by EPA at several other textile plants in cooperation with the South Carolina Textile Manufacturers Association and Clemson University. EPA CONTACT: Sargent, T. N.

NEW REPORT ABSTRACTS SECTION

600/2-76-061a **PE 1AB014** **CONTRACT NO. 68-02-0202**

Burner Criteria for NOx Control; Volume I—Influence of Burner Variables on NOx in Pulverized Coal Flames BY M. P. Heap, T. M. Lowes, R. Walmsley, H. Bartelds, and P. Levaguerese, International Flame Research Foundation IJmuiden, Holland, FC

The report gives results of the first phase of an investigation to specify burner design criteria to control NO_x in natural gas and pulverized coal flames. The two parameters found to have major influence on NO formation were the method of fuel injection and the degree of swirl. NO formation can be controlled by optimizing burner design parameters because its rate of formation depends on the detailed mixing history of the fuel, combustion air, and recirculating combustion products. The same parameters also dictate such flame characteristics as stability, length, and luminosity. An explanation of the influence of burner parameters on pulverized coal flames is based on two assumptions: the most significant factor of the total emission is fuel NO, and the emission variation depends on the fate of the volatile nitrogen compounds. Fuel NO formation can be reduced by ensuring that the volatile nitrogen compounds react under oxygen deficient conditions. Maximum emissions occur with radial fuel injects because the coal is rapidly mixed with the total air supply and hot recirculating products. These conditions ensure early stable ignition. However, fuel/air mixing promotes NO formation. Conversely, NO formation can be restricted by maintaining the fuel in a coherent axial jet and discouraging primary/secondary mixing by surrounding the fuel jet with an ignition front. The coal must also be delivered with the minimum amount of primary air. EPA CONTACT: Martin, G. B. 8-629-2235

600/2-76-062 **PE 1AA010** **CONTRACT NO. 68-02-1749**

Optimal Method for Measuring the Mass Concentration of Particulate Emissions BY G. R. Markowski, G. J. Waffinden, and D. S. Ensor, Meteorology Research, Inc. Altadena, CA

The objective of this study is to demonstrate the feasibility of an in-situ across-the-stack optical technique to measure the mass of particulate emissions from stationary sources. The technique uses small angle light scattering and transmittance to determine a quantity closely related to particulate mass concentration. The forward scattered light is measured at an angle of 1° or less. The technique has been investigated both theoretically using Mie theory, and experimentally using aerosols produced in the laboratory. The experimental results agree with the theoretical predictions and indicate that the method is relatively insensitive to changes in aerosol parameters such as particle size, refractive index, and shape. EPA CONTACT: Conner, W. D. 8-629-2216

600/2-76-063 **PE 1AB012** **GRANT NO. 802111**

POPEX—Ranking Air Pollution Sources by Population Exposure BY L. R. Babcock Jr., and N. L. Nagda, Illinois, University of, Medical Center Chicago, IL

The report gives results of research to develop quantitative models for relating emissions of air pollutants to their effects on people, and to use the methodology for determining the relative importance of air pollution sources. The quantitative methodology for ranking the sources developed in this project includes consideration of the dispersion of air pollutants, exposure of people, and subsequent health effects. The computer model, called POPEX, consists of three submodels: dispersion, population, and health effects. The model was applied to sources of air pollution in the Chicago Air Quality Control Region. Results show that 17 of 227 categories of sources contribute nearly 80% of the total airpollution/population-effect problem. EPA CONTACT: Ripberger, C. T. 8-629-2911

600/2-76-064 **PE 1AB013** **CONTRACT NO. 68-02-1319**

Atmospheric Pollution Potential from Fossil Fuel Resource Extraction, On-Site Processing, and Transportation BY E. C. Cavanaugh, G. M. Clancy, J. D. Colley, P. S. Dzierlenga, V. M. Felix, D. C. Jones, and T. P. Nelson, Radian Corporation Austin, TX

The report describes the processes and operations employed for the production, on-site processing, and transportation of coal, oil, oil shale, and gas. Typical processing sequences are represented by modules. For each module, identification and quantification of potential atmospheric emissions is achieved through the use of existing information. A review of emission source monitoring methods, as well as a study of possible source control methods, is presented. EPA CONTACT: Lorenzi, L. 8-629-2851

600/2-76-065 **PE 1AB015** **CONTRACT NO. 68-02-1353**

Assessment of Particle Control Technology for Enclosed Asbestos Sources—Phase II BY P. C. Siebert, T. C. Ripley, and C. F. Harwood, IIT Research Institute Chicago, IL

The report gives results of an experimental study to optimize control of emissions of asbestos fibers using a baghouse. Baghouse operating parameters found to be statistically significant in reducing asbestos emissions were: bag fabric, waste type, air-to-cloth ratio, relative humidity, period between shakes and duration of shaking, and shaking amplitude. Values of these operating parameters are recommended for industry usage to significantly reduce outlet concentrations of asbestos. These operating conditions resulted in pressure drops across the fabric filter that were quite reasonable (= or < 2.0 in. H_2O). The most economical alternatives of cotton sateen bags, high air-to-cloth ratio, and low pressure drop operating conditions were found to be among the most significant in reducing asbestos emissions. Among the recommendations are: an air-to-cloth ratio of 1.22 cu m/min/sq m (4.0 cfm/sq ft), a combination of period between shakes of 120 min with a shaking duration of 20 sec, and a shaking amplitude of 3.500 cm. EPA CONTACT: Oestreich, D. K. 8-629-2547

NEW REPORT ABSTRACTS SECTION

600/2-76-066 **PE 1AB012** **CONTRACT NO. 68-02-1324**

Evaluation of Turbulent Agglomeration for Fine Particle Control BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO

The report gives results of an evaluation of the potential of turbulent agglomeration in enhancing fine particulate control. Available information on theoretical and experimental aspects of turbulent agglomeration indicates that this is not a very viable approach for improving fine particle control. EPA CONTACT: Drehmel, D. C. 8-629-2925

600/2-76-067 **PE 1AB012** **CONTRACT NO. 68-02-1324**

Evaluation of Thermal Agglomeration for Fine Particle Control BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO

The report gives results of an evaluation of the potential of thermal agglomeration as a means of enhancing the collection of fine particle emissions. Available theoretical and experimental information indicates that this method of particle agglomeration offers no useful avenue for improving fine particle control. EPA CONTACT: Drehmel, D. C. 8-629-2925

600/2-76-068a **PE 1AB012** **IAG NO. IAG-133-D**

Defense Technology for Environmental Protection; Volume I— Final Report BY E. A. Byrd, O. M. Meredith, and S. Gee, U.S. Naval Surface Weapons Center Silver Spring, MD

The report condenses an effort designed to identify and transfer significant technology concerned with air pollution monitoring and control from the Department of Defense (DOD) to the EPA. Included are technology profiles of each DOD laboratory involved in particular work of interest to EPA's Industrial Environmental Research Laboratory-RTP, a bibliography of pertinent DOD documentation, and a description and assessment of how the study was conducted. EPA CONTACT: Abbott, J. H. 8-629-2925

600/2-76-068b **PE 1AB012** **IAG NO. IAG-133-D**

Defense Technology for Environmental Protection; Volume II— Bibliography BY E. A. Byrd, O. M. Meredith, and S. Gee, U.S. Naval Surface Weapons Center Silver Spring, MD

The report condenses an effort designed to identify and transfer significant technology concerned with air pollution monitoring and control from the Department of Defense (DOD) to the EPA. Included are technology profiles of each DOD laboratory involved in particular work of interest to EPA's Industrial Environmental Research Laboratory-RTP, a bibliography of pertinent DOD documentation and a description and assessment of how the study was conducted. EPA CONTACT: Abbott, J. H. 8-629-2925

600/2-76-069 **PE EHB525** **CONTRACT NO. 68-02-1316**

Environmental Assessment Perspectives BY P. F. Fennelly, D. F. Durocher, A. S. Werner, M. T. Mills, S. M. Weinstein, A. H. Castaline, and C. Young, GCA Corporation Bedford, MA

The report: (1) defines environmental assessment (EA) programs and their role in energy system development; (2) indicates data requirements of an EA; (3) outlines exemplary methodologies for acquiring the necessary data; (4) serves as a technology transfer vehicle by providing background information on environmental monitoring and modeling, which can be used in EAs; (5) summarizes the extent, quality, applications, and location of existing information resources which can be used in the planning of EAs; and (6) summarizes existing or proposed standards and criteria for evaluating air, water, and land based pollution. The report includes: waste stream characterization and pollution identification, indirect pollution associated with energy system development, estimating the sphere of influence of an energy system, evaluation of environmental impact, methodology for conducting source tests, use of dispersion models, available data banks and information sources, and existing and proposed environmental regulations. Each topic is explored to the degree necessary to acquaint the user with current standards, sampling and analytical techniques, and environmental models. General discussions are supplemented where possible with specific examples in order to clarify some of the concepts presented. EPA CONTACT: Venezia, R. A. 8-629-2547

NEW REPORT ABSTRACTS SECTION

600/2-76-070 **PE EHB528** **CONTRACT NO. 68-02-1010**

Disposal of Flue Gas Cleaning Wastes: EPA Shawnee Field Evaluation—Initial Report BY R. B. Fling, W. M. Graven, F. D. Hess, P. P. Leo, R. C. Rossi, and J. Rossoff, Aerospace Corporation Los Angeles, CA

The report describes progress made during the initial phase of a field evaluation program, conducted by EPA, to assess techniques for the disposal of power plant flue gas desulfurization (FGD) wastes. The site chosen for the evaluation was TVA's Shawnee Power Station, Paducah, Kentucky. Two 10 MW prototype flue gas scrubber systems—one using lime, the other limestone—produced wastes that were stored in five disposal ponds on the plant site. Two of the ponds contain untreated waste; each remaining pond contains waste chemically treated by one of three commercial contractors. Test samples of treated and untreated wastes, ground water, surface water, leachate, and soil cores are being analyzed in order to evaluate the environmental acceptability of current disposal technology. Based on this program, engineering estimates of total costs (capital and operating) for FGD waste treatment and disposal have been made. EPA CONTACT: Jones, J. W. 8-629-2915

600/2-76-071 **PE 1AB013** **CONTRACT NO. 68-02-0286**

Energy Conservation Techniques for the Iron Foundry Cupola BY D. J. Martin, Flynn and Emrich Company Baltimore, MD

The report gives results of an investigation of various existing or emerging technologies which can be used to reduce the energy consumption and pollution control costs of typical cupola operations. The investigation was prompted by: the increasing difficulty of cupola operation for some foundries caused by the rapid rise in fuel costs; and the financial burden on smaller foundries resulting from having to install highly efficient pollution control devices on cupolas. The report details options available to foundries in terms of technological devices which will conserve energy and capital. Included in this investigation were hot blast recuperation, divided blast, oxygen enrichment, and innovative pollution control equipment. EPA CONTACT: McGrillis, R. C. 8-629-2557

600/2-76-072 **PE EHB524** **CONTRACT NO. 68-02-1409**

Technical Manual for Analysis of Organic Materials in Process Streams BY P. W. Jones, A. P. Graffeo, R. Detrick, P. A. Clark, and R. J. Jakobsen, Battelle Columbus Laboratories Columbus, OH

The manual presents a very simple, yet informative, analytical strategy for the purpose of initial survey, to ensure that important emission problems do not go undetected. It also presents a more complex and detailed scheme for use on samples given high priority by the initial survey analysis. The manual was developed because of a major problem associated with the analysis of potentially hazardous organic emissions: a very large number of organic compounds may be present in a given industrial sample. If exhaustive analytical methods were applied to every emission source to be assessed, costs would become completely unreasonable, and much effort would be misdirected on samples of little concern. A comparison volume, concerned with sampling of organic substances, is available, and has been fully coordinated with the technical manual to ensure compatibility. EPA CONTACT: Johnson, L. D. 8-629-2557

600/2-76-073 **PE 1AB012** **CONTRACT NO. 68-02-1398**

Wind Tunnel Evaluation of Particle Sizing Instruments BY C. H. Gooding, Research Triangle Institute Research Triangle Park, NC

The report gives results of an experimental study, undertaken to evaluate and compare several particle sizing instruments. Fly ash from a coalfired power plant was redispersed and fed into a wind tunnel at concentrations corresponding roughly to clean and dirty stack conditions. Data were obtained with two standard cascade impactors (using gravimetric mass determination), a set of series cyclones, a cascade impactor with piezoelectric crystal sensors, a cascade impactor using data attenuation to determine collected mass, and an optical single-particle counter using a laser light source. The standard impactors and the series cyclones yielded comparable results. Data from the piezoelectric crystal cascade were in reasonable agreement with the standard impactors but were limited because of the required extractive sampling mode and the mass capacity limitation of the crystals. The beta impactor showed general agreement but needs further development in the areas of zero stability, sensitivity, signal-to-noise ratio, and scale conversion from beta attenuation to collected mass. No simple correlation could be established between the results of the optical instrument and those of the inertial classification devices, due to the probable nonuniformity of particle shape and density. EPA CONTACT: Kuykendal, W. B. 8-629-2557

600/2-76-074 **PE 1AB012** **IAG NO. PL-480:5-533-3**

Effect of Filtration Parameters on Dust Cleaning Fabrics BY J. R. Koscianowski, and L. Koscianowska, Institute of Industry of Cement Building Materials Opole, Poland, FC

The report covers the first phase of research into the dependence of filtration efficiency on filtration parameters and fabrics. It gives results of laboratory tests of three types of polyester fabrics and one polyamid fabric in the filtration of cement and coal dusts with particles of mass median diameter of 7.5 micrometers. Noted during the tests were: the relationship between the type of dust and filtration process parameters; and the effect of electrostatic properties on the filtration process. The dust filtration process was classified into three filtration types. The structure of filtration fabrics was tested on the basis of air flow through 16 fabric samples in two ranges of air flow velocity. The stochastic character of air flow through the fabrics was verified. Structural parameters of the fabrics, as well as derivative parameters, were measured and observed phenomena were analyzed from an analytical viewpoint. The report also covers results of cement and coal dust electrification tests and fabric resistance measurements. EPA CONTACT: Turner, J. H. 8-629-2925

NEW REPORT ABSTRACTS SECTION

600/2–76–075 PE 1AB015 IAG NO. IAG-D4–0501

Analysis of Polycyclic Organic Materials in Coal, Coal Ash, Fly Ash, and Other Fuel and Emission Samples BY A. G. Sharkey, J. L. Schultz, C. White, and R. Lett, U.S. Energy Research and Development Administration Pittsburgh, PA

The report gives results of a high-resolution mass spectrometric investigation to determine the major polynuclear aromatic hydrocarbons (PNAs) in samples derived from various fuel conversion processes and related plant emissions. Studied were particulate materials and extracts of hydrocarbons in the particulate materials collected on filters placed in flue gas streams from coking, smelting, and similar industrial operations. The analysis considered 14 highly carcinogenic PNAs, with nine unique formulas. Additional quantitative data were obtained by low ionizing voltage techniques for major aromatic hydrocarbon classes, where possible. The gases evolved from the particulate samples were also identified. EPA CONTACT: Johnson, L. D. 8–629–2557

600/2–76–076 PE 1AB013 CONTRACT NO. 68–02–1323

Assessment of the Degree of Flexibility in Fuel Distribution Patterns BY E. H. Hall, A. A. Putnam, and R. L. Major, Battelle Columbus Laboratories Columbus, OH

The report gives results of a study to evaluate the potential of fuel switching as an element of an overall strategy for the control of sulfur oxide emissions from stationary sources. Blocks of misplaced fuels (i.e., clean fuels now burned in large sources and dirty fuels now burned in small sources) were identified. Various potential constraints to switching the misplaced fuels were evaluated. These included: equipment constraints, business constraints, and fuel transportation constraints. From these evaluations, the quantities of misplaced fuels were identified which are not limited by any of the constraints, and therefore which can be considered suitable for switching. EPA CONTACT: Henschel, D. B. 8–629–2825

600/2–76–077a PE 1AB012 CONTRACT NO. 68–02–1438

Fractional Efficiency of a Utility Boiler Baghouse: Sunbury Steam-Electric Station BY R. W. Cass, and R. M. Bradway, GCA Corporation Bedford, MA

The report gives results of extensive tests of a fabric filter baghouse operating on the effluent of a coal-fired utility boiler burning a mixture of petroleum coke and anthracite silt. The tests were conducted to determine the total mass and fractional efficiencies of the baghouse during normal and abnormal operation with brand new and used filter bags. Total mass samplers, inertial impactors, and a condensation nuclei counter were used to sample the baghouse influent and effluent. Results of the normal tests with the brand new and used bags determined the baghouse mean mass removal efficiencies to be 99.88 and 99.93%, respectively. Statistical analysis of the test results showed that the purposely altered variables had no significant effect on either the outlet concentration or penetratration for normal and abnormal tests of the used bags. However, there were significant differences in the outlet concentrations and penetrations when the normal tests were compared for the new and used bags. There were also significant differences in the outlet concentrations when the new bag normal and abnormal tests were compared. EPA CONTACT: Turner, J. H. 8–629–2925

600/2–76–078 PE 1BB392 CONTRACT NO. 68–03–2053

Cost Estimating Methodology for Once-Through Cooling Water Discharge Modifications BY J. W. Hayden, and R. Mayer, Acres American, Inc. Buffalo, NY

The report gives a methodology for evaluating the engineering and cost implications of constructing or modifying once-through cooling water discharge systems of thermal-electric generating plants within the contiguous U.S. The procedures give (to persons not skilled in cost engineering) a means of preparing preliminary cost estimates from conceptual or design drawings. The user should, however, have a technical background and be familiar with once-through cooling water discharge systems. Principal construction elements of discharge system construction and modification are identified and grouped into categories. Materials and installation methods are discussed for each construction element. Data is given on labor, materials, equipment, and productivity assumed in unit cost development. A step-by-step procedure is given for: (1) estimating construction costs, and (2) resolving construction costs into project and annual costs. An example is shown using the methodology; the result is compared with actual construction costs for modifications to an existing discharge system. EPA CONTACT: Chasse, J. P.

600/2–76–079 PE 1AB015 CONTRACT NO. 68–02–1331

Flare Systems Study BY M. G. Klett, and J. B. Galeski, Lockheed Missiles and Space Company, Inc. Huntsville, AL

The report gives results of a study of industrial flare technology for control of gaseous combustible emissions from stationary sources. The study included evaluation of present engineering technology, evaluation of existing flare systems, assessment of present practices and problems, determination of major sources, and development of research recommendations including potential applications. The report summarizes emissions data, and gives emission factors for hydrocarbon waste streams, based on limited available data. It recommends the selection of applicable flare systems and components for flaring given waste streams. It discusses potential problems which may affect design and component selection. It gives cost guidelines based on discussions with flare vendors and users. EPA CONTACT: Samfield, M. 8–629–2547

NEW REPORT ABSTRACTS SECTION

600/2-76-080 PE EHB557 CONTRACT NO. 68-02-1398

Quality Assurance Program for the EPA/Shawnee Wet Limestone Scrubber Demonstration BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC

The report describes a short-term quality assurance program, implemented at the EPA wet limestone scrubber facility located at the Shawnee steam/electric plant, Paducah, Kentucky. The program was part of a project to prepare a set of quality assurance guidelines for demonstration projects. The control laboratory, the effluent gas streams, and process instrumentation were reviewed and audited. In the control laboratory, side-by-side pH measurements were made, and limestone slurry samples were collected. These samples were sent to three independent laboratories for analysis of selected elements in the solid and liquid phases. Gas stream work covered both particulate grain loading and analysis of SO_2. Particulate sampling and weighing techniques were observed, and volume calibration checks were made. SO_2 was collected, analyzed by two chemical methods, and compared with the in-stack photometric measurement system. Process instrumentation was checked with portable precision electronic equipment carried on-site and inserted into instrumentation circuitry to verify accuracy of sensors and readout devices. EPA CONTACT: Johnson, L. D. 8-629-2557

600/2-76-081 PE EHB557 CONTRACT NO. 68-02-1398

Guidelines for Demonstration Project Quality Assurance Programs BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC

The report presents general guidelines for planning and implementing quality assurance programs at EPA/IERL-RTP demonstration projects. Because quality assurance, a system of activities whose purpose is to assure that overall quality is being controlled effectively, requires a thorough understanding of quality control, the report initially addresses the major components of a project quality control program, including a discussion of quality control in the request for proposal, the proposal, and the work plan. The two major functional areas of quality assurance are the qualitative systems review and the quantitative performance audit. A detailed checklist is provided to aid in the systems review, and three tables provide general information on available techniques for the performance audit. These tables cover the auditing of physical measurements, gas effluent streams, and liquid process streams. The report is designed for project officers, contractors, and others concerned with quality assurance programs at IERL-RTP demonstration projects. EPA CONTACT: Johnson, L. D. 8-629-2557

600/2-76-082 PE 1BB033 GRANT NO. 802309

Tertiary Treatment for Phosphorus Removal at Ely, Minnesota AWT Plant, April 1973 thru March 1974 BY J. W. Sheehy, and F. L. Evans III, Municipal Environmental Research Laboratory, EPA Cincinnati, OH

This report discusses the design, the construction and the first year's operation of the 1.5 mgd tertiary treatment plant located in Ely, Minnesota. The tertiary treatment plant was constructed to reduce the phosphorus concentration from the existing trickling filter plant effluent, a point source constituting 80% of the phosphorus entering culturally eutrophic Shagawa Lake. The tertiary plant was designed and constructed to reduce the total phosphorus concentration in the trickling filter plant effluent to 0.05 mg/1. The tertiary facility consists of flow equalization, twostage lime clarification followed by dual-media filtration and chlorination. This report includes performance data, operational data, maintenance requirements, and operating costs for the Ely AWT facility. The report presents a thorough discussion of phosphorus performance data. There is a discussion of sludge treatment processes. Operating data described includes wastewater flow, chemical dose, pH, and clarifier solids volume. Frequent and routine maintenance items are included. Operating costs are divided into five categories and 27 sub-categories. In the first 12 months of continuous operation, the tertiary plant discharged an effluent total phosphorus concentration averaging 0.045 mg/1. Operational costs for the 1.5 mgd plant averaged $0.24/m^3 ($0.91/1000 gallons). EPA CONTACT: Brice, R. M.

600/2-76-083 PE EHB557 CONTRACT NO. 68-02-1398

Development and Trial Field Application of a Quality Assurance Program for Demonstration Projects BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC

The report outlines results of a project: to develop a set of quality assurance guidelines for EPA demonstration projects; to implement a short-term quality assurance program at the EPA wet limestone scrubber facility at the Shawnee steam/electric plant; and to modify the guidelines in light of the Shawnee operating experience. The set of quality assurance guidelines and detailed results of the Shawnee program are included in two other reports prepared during the project. EPA CONTACT: Johnson, L. D. 8-629-2557

600/2-76-084 PE EHE626 CONTRACT NO. 68-01-2940

Conoco Dolomite Hot Gas Clean-up System BY E. D. Oliver, and K. T. Semrau, Stanford Research Institute Menlo Park, CA

This report analyzes a proposal that EPA sponsor a large-scale pilot plant to develop the Conoco (formerly Consol) Dolomite Hot Gas Clean-up system. The report includes a history of the prior development program, the technology involved comparisons with competitive technologies in regard to technical feasibility, potential efficiency, and environmental benefits. Future funding implications are explored. The potential benefits in economy and efficiency of energy conversion are judged to be substantial, but the cost of development is high. The expected cost of the pilot plant program may be greater than funding ability. The current laboratory program should either be continued or should be terminated in a way that will insure that the knowledge already gained is retrievable. EPA CONTACT: Foley, G. J. 8-426-4180

NEW REPORT ABSTRACTS SECTION

600/2-76-085 **PE EHE626** **CONTRACT NO. 68-01-3118**

Gasification/Combined-Cycle System for Electric Power Generation BY J. B. Truett, Mitre Corporation McLean, VA

This report describes a type of gasification/combined cycle system being considered for construction by a consortium of Louisiana cities that own electrical utility systems. The 115 KW system is expected to employ the Texaco Synthesis Gas Generation Process (TSGGP) to produce a fuel gas by partial oxidation of a hydrocarbon feedstock. The gas is cleaned to remove sulfur compounds, ash, and particulates, then burned as fuel for the gas turbine in a combined-cycle power system. The commercially-proven TSGGP process accepts a large variety of hydrocarbons as feedstocks. The initial feedstock for this application is expected to be heavy petroleum residues, although the potential exists for utilization of coal and lignite. Other features of the proposed system include (1) high thermal efficiency (relative to conventional steam generators) resulting in part from efficient recovery of thermal energy from the gasification of feedstock; and (2) extremely low levels of pollutants (SO_x, NO_x) in emissions to the atmosphere. The five participating municipalities have established a joint commission, "Louisiana Municipal Power Commission" (LAMPCO), which has retained the services of bond counsel and investment banking firms, and is proceeding with plans to implement the proposed power generation facility. EPA CONTACT: Foley, G. J. 8-426-4180

600/2-76-086a **PE 1AB014** **CONTRACT NO. 68-02-1074**

Field Testing: Application of Combustion Modifications to Control Pollution Emissions from Industrial Boilers – Phase II BY G. A. Cato, L. J. Muzio, and D. E. Shore, KVB Engineering, Inc. Tustin, CA

The report gives results of testing 19 coal, oil, and gas-fired industrial boilers to determine their normal emissions and the effectiveness of combustion modifications in reducing NO_x emissions without increasing the emission of particulates and other pollutants. Combustion modifications investigated were: reducing excess air, recirculating flue gas, staging combustion air, adjusting burner swirl registers, reducing combustion air temperature, turning the burner, changing atomization pressure, and changing oil temperature. Emissions were found to be not significantly dependent on boiler size, but very dependent on the fuel. Generally, the normal NO_x emissions were below EPA Standards for New Stationary Sources. Particulate emissions from oil and gas were below 43 ng/J (0.1 lb/million Btu): from coal, they are above by a factor of 5. NO_x reductions of as much as 50% were obtained with several combustion modifications. In most instances the boiler heat-loss efficiency was not degraded. Although particulate emissions usually increased, the increase could be limited by fine-tuning the boiler. There was no significant effect on any other pollutant emission. EPA CONTACT: Hall, R. E.

600/2-76-087 **PE 1AB012** **CONTRACT NO. 68-02-1325**

Vegetative Stabilization of Mineral Waste Heaps BY R. P. Donovan, R. M. Felder, and H. H. Rogers, Research Triangle Institute Research Triangle Park, NC

The report reviews the establishment of vegetative cover as a candidate method for reclaiming mineral ore waste heaps. It begins by describing the location and properties of spoils and tailings from mining and ore beneficiation, and briefly reviews present methods for controlling dust emissions from them. Most of the report develops fundamentals for establishing vegetative cover, and gives a detailed review of case histories of both successful and unsuccessful revegetation. The report also contains a catalog of individual plant species. This mass of information can be used to provide general guidelines for establishing vegetative cover. EPA CONTACT: Oestreich, D. K. 8-629-2547

600/2-76-088 **PE 1AB014** **CONTRACT NO. 68-02-0251**

Guidelines for Burner Adjustments of Commercial Oil-FiredBoilers BY D. W. Locklin, and R. E. Barrett, Battelle Columbus Laboratories Columbus, OH

The Guidelines contain recommended oil-burner adjustment procedures for commercial boilers to minimize air pollution and for efficient fuel use. They are intended for use by skilled service technicians in adjusting commercial oil-fired boilers, and as an aid to service managers engaged in training service technicians. In addition to recommended steps for burner adjustment, the Guidelines include appendixes of background material on pollutants of main concern, field-type instruments and significance of measurements, fuel-oil grades, and emission characteristics of commercial boilers. EPA CONTACT: Hall, R. E. 8-629-2477

600/2-76-089a **PE 1AB015** **CONTRACT NO. 68-02-2110**

Technical Manual for Measurement of Fugitive Emissions: Upwind/Downwind Sampling Method for Industrial Emissions BY H. J. Kolmsberg, Research Corporation of New England Wethersfield, CT

The manual provides a guide for the implementation of the Upwind/Downwind Sampling Strategy in the measurement of fugitive emissions. Criteria for the selection of the most applicable measurement method and discussions of general information gathering and planning activities are presented. Upwind/downwind sampling strategies and equipment are described. The design of the sampling system, sampling techniques, and data reduction procedures are discussed. Manpower requirements and time estimates for typical applications of the method are presented for programs designed for overall and specific emissions measurements. The application of the outlined procedures to the measurement of fugitive emissions from a Portland cement manufacturing plant is presented as an appendix. EPA CONTACT: Statnick, R. M. 8-629-2557

NEW REPORT ABSTRACTS SECTION

600/2-76-090 **PE 1AB013** **CONTRACT NO. 68-02-1485**

Clean Fuels from Agricultural and Forestry Wastes BY J. W. Tatom, A. R. Colcord, J. A. Knight, and L. W. Elston, Georgia Institute of Technology Atlanta, GA

The report gives results of an experimental investigation of the operating parameters for a mobile waste conversion system based on the Georgia Tech Engineering Experiment Station's partial oxidation pyrolysis process. The object of the testing was to determine the combination of parameters producing the most char and oil and the least gas from agricultural and forestry wastes. The tests indicated both the dominant influence of air/feed on char and oil yields, and the desirability of low values of this ratio. In addition to the testing, a preliminary design of a 200 ton/day mobile pyrolysis system for conversion of agricultural and forestry wastes into clean fuels was made and a simplified economic analysis conducted. The results of this work indicate the technical feasibility and the economic profitability of such a system. EPA CONTACT: Kilgroe, J. D. 8-629-2851

600/2-76-091 **PE EHB527** **IAG NO. IAG-P5-0685**

Sulfur Reduction Potential of U.S. Coals: A Revised Report of Investigations BY J. A. Cavallaro, M. T. Johnston, and A. W. Deurbrouck, U.S. Department of the Interior Pittsburgh, PA

The report gives results of a washability study of 455 raw coal channel samples with special emphasis on sulfur (S) reduction. These raw coals contained on the average 14.0% ash, 1.91% pyritic S, and 3.02% total S. Complete washability data are presented for each sample processed. A statistical evaluation is included for coalbeds from which more than 10 samples were collected and for the geographical coal producing regions. A graphical summation is given for the coal producing regions and selected coalbeds. A similar statistical evaluation is included showing composited data interpolated at Btu recovery levels of 50, 60, 70, 80, 90, and 100%. Graphical summations are given for the various coal producing regions. Generally, significant S reduction is achieved if the coals are crushed to a finer size and the higher specific gravity increments are removed. If a 50% Btu recovery were acceptable, then 32% of the samples tested could be upgraded to meet the current EPA standard of 1.2 lbs of SO_2 emission per million Btu when crushed to 14-mesh top size and separated gravimetrically. EPA CONTACT: Kilgroe, J. D. 8-629-2851

600/2-76-092 **PE 1AB012** **CONTRACT NO. 68-02-1319**

Total Suspended Particulates: Review and Analysis BY R. M. Wells, Radian Corporation Austin, TX

The report gives results of a review and analysis of the readily available information on total suspended particulates in the atmosphere. The purpose of the review was to determine the relative contribution of primary and secondary particulate matter to the total aerosol mass suspended in the atmosphere and to identify where the available information is insufficient to determine the needs for future control technology development. The report does not identify the fraction of total suspended particulates attributable to mobile and to stationary sources. EPA CONTACT: McSorley, J. A. 8-629-2745

600/2-76-093b **PE 1AB013** **CONTRACT NO. 68-02-1412**

Field Test Sampling/Analytical Strategies and Implementation Cost Estimates: Coal Gasification and Flue Gas Desulfurization BY J. W. Hamersma, and S. L. Reynolds, TRW Systems Group Redondo Beach, CA

The report gives results of a determination of sampling and analysis implementation costs for two energy related process technologies: wet limestone scrubbing of flue gas and a Lurgi coal gasification system. Two different sampling and analytical approaches were costed which would yield the same information output. The first approach, requiring two levels of sampling and analytical effort, is called the phased sampling program. The second approach was a direct single effort to achieve the same level of information for decision-making as the phased approach. In the test cases, costed from sample acquisition through analysis, the phased sampling and analytical approach was the most cost effective. EPA CONTACT: Statnick, R. M. 8-629-2557

600/2-76-094 **PE 1AA010** **IN-HOUSE PROJECT**

Rapid Method for Determining NO_x Emissions in Flue Gases BY H. M. Barnes, and M. C. Caldwell, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

This report discusses the NO_x compliance procedure (Method 7) for stationary sources and the attempts to improve the procedure and decrease analytical time. When the procedure is rigorously followed, Method 7 was found to be precise and to give reproducible results. To decrease the time necessary to oxidize NO to NO_2, Method 7 was modified by adding an ozone lamp. Good agreement (± 12% or less) was found between nitrate measurements using Method 7 and measurements using modified Method 7. Future work incorporating an ozone lamp into an integrated sampling apparatus is discussed. EPA CONTACT: Hosler, C. R. 8-629-4541

NEW REPORT ABSTRACTS SECTION

600/2-76-095 **PE 1BC611** **IN-HOUSE PROJECT**

Urban Runoff Pollution Control Program Overview: FY 76 BY R. Field, A. N. Tafuri, and H. E. Masters, Municipal Environmental Research Laboratory, EPA Edison, NJ

FY'76 review of EPA's Urban Runoff Pollution Control Research, Development, and Demonstration Program. The review describes: the basic pollution, flood control and soil erosion problems created by urban runoff; governmental administration and incentive problems; EPA R&D organizational structure; nationwide cost requirements to abate urban runoff pollution; available abatement technology along with ongoing and perceived developments; and, of overlying importance, program direction and desired goals are cited with intent towards a truer concept of solution methodology involving receiving stream impact analyses. Details in summary and abstract form are presented covering the gamut of technologic advancements resulting from some 150 R&D projects. Stormwater management is broken down into the categories of: problem definition, user assistance tools, land management, collection system control, storage, treatment, sludge/solids, integrated systems, and technical assistance/technology transfer. General cost comparisons for urban runoff pollution control/ treatment are given along with a specific example of a cost-effect solution for urban runoff pollution control by in-line storage in Seattle, Washington, and a simplified hypothetical plan for wet-weather flow pollution abatement for the Des Moines, Iowa area. EPA CONTACT: Field, R. 8-342-7503

600/3-76-001 **PE 1BA023** **IN-HOUSE PROJECT**

Dynamic Behavior of Vinyl Chloride in Aquatic Ecosystems BY J. Hill IV, H. P. Kollig, D. F. Paris, N. L. Wolfe, and R. G. Zepp, Environmental Research Laboratory, EPA Athens, GA

To evaluate the behavior of vinyl chloride in aquatic ecosystems, best estimate and worst case models of lake and stream ecosystems were analyzed through the use of mathematical simulation. The characteristics of the chemical, biological, and physical transformations of vinyl chloride indicated in the models were determined by laboratory experimentation and extrapolation of reaction data for similar compounds. These transformations included oxidation, substitution, elimination, hydrolysis, and free radical reactions; complexation; direct and indirect photochemical reactions; microbial degradation and toxicity; bacterial, algal, and fungal sorption; and volatilization. Loss of vinyl chloride from the aquatic environment by volatilization appeared to be the most significant process in its distribution. EPA CONTACT: Upham, J. B. 8-629-2891

600/3-76-002 **PE EHA446** **IN-HOUSE PROJECT**

Bioenvironmental Impact of a Coal-Fired Power Plant – First Interim Report, Colstrip, Montana, December 1974 BY R. A. Lewis, and A. S. Lefohn, Environmental Research Laboratory, EPA Corvallis, OR

In June 1974, the National Ecological Research Laboratory initiated a field program in southeastern Montana. The purpose of this program is to assess the effects of a coal-fired power plant on the terrestrial environment. Numerous investigators have worked together on this project to establish a baseline investigation to characterize the environment around the plant prior to operation. This report is a summary of activities from June through October 1974. The overall objectives, rationale, and design of the project are outlined. Recommendations regarding further actions on many of the components of this program are also included. The paper serves primarily as a status report to the scientists and managers who have been following the project since its inception in March 1973. EPA CONTACT: Lewis, R. A. 8-420-4668

600/3-76-003 **PE 1BA025** **GRANT NO. 11010 FAC**

Results of Ocean Diffusion and Biological Studies of the Hollywood, Florida, Ocean Outfall BY J. D. Crane, and R. H. Jones, City of Hollywood

Full-scale diffusion experiments were conducted to estimate coliform bacteria concentration patterns of sewage effluent from two ocean outfalls located at Pompano Beach and Hollywood, Florida. The experiments consisted of two parts: turbulent diffusion of sewage effluent, and natural die-off of coliform bacteria. Further studies were conducted before, during, and after construction of the Hollywood, Florida, ocean outfall to determine the outfall's effect on ocean ecology. For the majority of the diffusion experiments, Rhodamine dye was injected at a continuous rate into the sewage at the sewage treatment plants. The data indicated that, for the travel times of interest, initial dye concentrations can be reduced by a factor as high as 1,000. Experimental determinations of coliform die-off rates indicated that during the summer months the natural die-off is approximately two orders of magnitude greater than that during the winter. The biological studies consisted of qualitative and quantitative evaluations of the microscopic algae and protozoa of the surface waters and the ocean floor to a distance of about two miles from shore. Detectable effects of the Hollywood outfall were confined to a very small mixing zone in the immediate vicinity of the outfall outlet in which a reduction of plankton was observed. Phytoplankton increase, which would be expected from nutrient enrichment, was not observed to occur as a result of the Hollywood outfall in the areas surveyed. The studies provide no indication that sewage release through the Hollywood outfall had any significant effect on aquatic ecology. Hollywood, FL EPA CONTACT: Lamasney, E. P. 8-285-5201

NEW REPORT ABSTRACTS SECTION

600/3–76–004 **PE 1EA077** **GRANT NO. 801178**

Herbicide Toxicity in Mangroves BY H. J. Teas, Miami, University of Coral Gables, FL

The amine salts of 2,4-D and picloram were applied to the Florida species of mangroves. red mangrove (*Rhizophora mangle*), white mangrove (*Laguncularia racemosa*) and black mangrove (*Avicennia germinans*). Treatments were to soil or water, by aerial spray and to single leaves as droplets. The effects on radiochloride uptake and on localization of radiocarbon-labelled picloram after leaf application were studied in red mangrove. "Lethal doses" for young seedlings were 2.7 kg/ha for white mangrove, 13 kg/ha for red and 13 kg/ha for black; for mature plants they were 2.7, 13 and > 53 kg/ha, respectively. "Tolerance doses" for young seedlings were 0.01, 5.3 and 5.3 kg/ha; for mature plants they were 0.5, 5.3 and 53 kg/ha. "No effect doses" for seedlings were < 0.01 kg/ha for all species; for mature plants they were < 0.1, 0.5 and 2.7 kg/ha. Spray applications of 6.3 – 12.2 kg/ha of commercial mixture to the canopy of a mixed-species forest caused partial defoliation within three weeks. Within 16 months it killed all of the white, 78 – 100% of the mature red, but none of the mature black mangroves. Radiocarbon-labelled picloram concentrated in dormant buds of red mangrove and it is concluded that the tree is killed by the mixture because of its effects on them. EPA CONTACT: Walsh, G. E.

600/3–76–005 **PE 1FA083** **IN-HOUSE PROJECT**

Americium – Its Behavior in Soil and Plant Systems BY K. W. Brown, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

The small amount of data available on the behavior of americium in plant and soil systems is reviewed and found lacking in several critical areas. Although some studies have been done on the physical and chemical interaction of americium on these systems, most of them were shortterm and limited in scope. As americium is classified as a hazardous radionuclide and is likely to increase in importance as an environmental pollutant, further study is suggested. Also, the use of americium as a tool for measuring various soil parameters is discussed. EPA CONTACT: Brown, K. W.

600/3–76–006 **PE 1FA083** **IN-HOUSE PROJECT**

Tritium Accumulation in Lettuce Fumigated with Elemental Tritium BY J. C. McFarlane, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

Lettuce plants fumigated with elemental tritium accumulated tritium in the plant water as well as in the organic constituents. The conversion rate of elemental tritium to tritiated water varied from 0.5 nanocuries per minute per pot at the start to 0.8 nanocuries per minute per pot at the termination of the 24-day exposure to an air concentration of 5 nanocuries per liter. Based on the concentration of tritium in various plant tissues, foliar absorption was postulated as the route of plant contamination. The data indicated that an enzymatically facilitated conversion on the leaf or soil surface was the probable mechanism. EPA CONTACT: McFarlane, J. C.

600/3–76–007 **PE 1EA077** **GRANT NO. 801128–02–**

Effects of Mirex, Methoxychlor, and Malathion on Development of Crabs BY C. G. Bookhout, and J. D. Costlow Jr., Duke University Marine Laboratory Beaufort, NC

Laboratory experiments were conducted to determine the effects of mirex, methoxychlor and malathion on the larval development of *Callinectes sapidus* from the time of hatching until the first crab stage is reached. For comparison, similar investigations were made to ascertain the effects of methoxychlor and malathion on larval development of *Rhithropanopeus harrisii*. The effect of a range of concentrations of each insecticide on survival of larvae of *C. sapidus* and *R. harrisii* was determined, as well as concentrations which were sublethal and lethal. Zoeal and total development to the first crab stage of *R. harrisii* and *C. sapidus* was prolonged in relation to increased concentrations of methoxychlor and malathion. Other sublethal effects of methoxychlor and malathion included abnormal development of the pleopods of male *R. harrisii* and male *C. sapidus* early crab stages, and autotomy of the legs of *R. harrisii* megalopa and early crab stages. The developmental stages in which larvae are particularly sensitive vary in the two species and with the three insecticides. Mirex residues of *C. sapidus* larvae reared in different concentrations of mirex, and methoxychlor residues of *R. harrisii* and *C. sapidus* larvae reared in concentrations of methoxychlor were determined. EPA CONTACT: Lowe, J.

600/3–76–008 **PE 1BA021** **CONTRACT NO. 68–01–0748**

Acute Toxicity of Selected Toxicants to Six Species of Fish BY R. D. Cardwell, D. G. Foreman, T. R. Payne, and D. J. Wilbur, Chemico Process Plants Company-Envirogenics System El Monte, CA

The relationship between median lethal concentration and exposure time was determined for five chemicals and up to six species of freshwater fish in a flow-through system. The lowest median lethal concentrations found were 0.114 mg/1 for sodium cyanide, 0.118 mg/1 for sodium pentachlorophenate, 2.9 mg/1 for selenium dioxide, 18.0 mg/1 for sodium arsenite, 25.4 mg/1 for beryllium sulfate, and greater than 100 mg/1 for lead chloride. Toxicity curves relating median lethal concentration to exposure time were of three types. One curve, resembling a rectangular hyperbola, characterized the toxicity of sodium cyanide, while another curve, sigmoid in shape, characterized the toxicity of selenium dioxide. Both types of curves were observed in toxicity tests with sodium pentachlorophenate, sodium arsenite and beryllium sulfate. Linear toxicity curves were recorded for some fish species exposed to selenium dioxide, sodium arsenite and beryllium sulfate, but these were usually encountered when exposure times were less than 96 hr. EPA CONTACT: Stephan, C. E.

NEW REPORT ABSTRACTS SECTION

600/3–76–009 PE 1BA608 GRANT NO. 800700

Toxicity of Chlorinated Power Plant Condenser Cooling Waters to Fish BY R. E. Basch, and J. G. Truchan, Michigan Water Resources Commission Lansing, MI

Studies were conducted during 1972 at five Michigan power plants in which caged brown trout (*Salmo trutta*) and fathead minnows (*Pimephales promelas*) were held for 96 hr in the intake and condenser cooling water discharge channels and in condenser cooling water dechlorinated with sodium thiosulfate. Total residual chlorine levels as low as 0.05 mg/ liter were lethal to brown trout below four of the five plants. Total residual chlorine concentrations lethal to 50 percent (ILC-50) of the caged brown trout at two plants averaged from 0.02 to 0.18 mg/liter during the chlorination periods. Fathead minnow deaths in all studies could not be attributed to the total residual chlorine. Resident fish were observed in distress at two plants during 1972. These behavioral symptons were noted at maximum total residual chlorine concentrations ranging from 0.2 to 0.5 mg/liter. Studies were repeated in 1973 at one plant with brown trout and other salmoid species. No deaths of test fish occurred during these tests that could be attributed to chlorine concentrations. The inconsistent results may be related to interactions between chlorine, temperature, and dissolved oxygen saturation in the discharge channel. EPA CONTACT: Arthur, J. W.

600/3–76–010 PE 1AA003 IAG NO. IAG-069

Isotopic Composition of Carbon Monoxide in St. Louis, Missouri Area BY L. E. Ross, A. Engelkemeier, and E. E. Voiland, Argonne National Laboratory Argonne, IL

The concentration and isotopic composition of carbon monoxide were determined in air samples taken in the St. Louis, Missouri area. This information is used to follow the plume for a major city like St. Louis. Urban air could be detected as far as 47 miles downwind of the city. The effect of local emissions in rural areas was found to be minimal. Diurnal studies demonstrated an inverse relationship between carbon monoxide concentration and oxygen and carbon isotopic ratios during the night. A parallel relation was found during the daylight hours. EPA CONTACT: Bufalini, J. J.

600/3–76–011a PE 1AA003 ROAP/TASK 26 AAI 413 CONTRACT NO. 68–02–1081

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 1 Rockwell International Corporation Newbury Park, CA

The Regional Air Pollution Study (RAPS), which encompasses the St. Louis Air Quality Control Region, is the largest and most comprehensive attempt to date to obtain a quantitative understanding of urban air pollution. Its aim is to describe the complex relationships between emissions to the atmosphere, atmospheric dispersions and transformation processes, and ambient concentrations of pollutants. In addition, numerous corollary studies are planned under the RAPS "umbrella." An accurate, detailed and comprehensive inventory of emission to the atmosphere constitutes a basic input to this understanding. The RAPS emission inventory was planned to provide far more detailed information than has been available anywhere in the past; its aim is to obtain hourly data for key pollutants based insofar as possible, on measured values. Thus, emission data should be available for a base period of a year, commensurate in detail and accuracy with data on ambient concentrations and micrometeorological information gathered by the Regional Air Monitoring Stations. The ultimate value of the RAPS Study will, it is hoped, not be confined to the St. Louis area, but rather will provide a model for future studies of this type in other areas. For this reason the National Air Data Branch provided complete documentation of all efforts connected with the assembly of the regional emission inventory so that the techniques and methodology developed for this project will be applicable to future studies. EPA CONTACT: Schiermeier, F. A.

600/3–76–011b PE 1AA003 ROAP/TASK 26 AAI 413 CONTRACT NO. 68–02–1081

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 2 Rockwell International Corporation Newbury Park, CA

The Regional Air Pollution Study (RAPS), which encompasses the St. Louis Air Quality Control Region, is the largest and most comprehensive attempt to date to obtain a quantitative understanding of urban air pollution. Its aim is to describe the complex relationships between emissions to the atmosphere, atmospheric dispersions and transformation processes, and ambient concentrations of pollutants. In addition, numerous corollary studies are planned under the RAPS "umbrella." An accurate, detailed and comprehensive inventory of emission to the atmosphere constitutes a basic input to this understanding. The RAPS emission inventory was planned to provide far more detailed information than has been available anywhere in the past; its aim is to obtain hourly data for key pollutants based insofar as possible on measured values. Thus, emission data should be available for a base period of a year, commensurate in detail and accuracy with data on ambient concentrations and micrometeorological information gathered by the Regional Air Monitoring Stations. The ultimate value of the RAPS Study will, it is hoped, not be confined to the St. Louis area, but rather will provide a model for future studies of this type in other areas. For this reason the National Air Data Branch provided complete documentation of all efforts connected with the assembly of the regional emission inventory so that the techniques and methodology developed for this project will be applicable to future studies. EPA CONTACT: Schiermeier, F. A.

NEW REPORT ABSTRACTS SECTION

600/3–76–011c PE 1AA003 ROAP/TASK 26 AAI 413 CONTRACT NO. 68–02–1081

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 3 Rockwell International Corporation Newbury Park, CA

The Regional Air Pollution Study (RAPS), which encompasses the St. Louis Air Quality Control Region, is the largest and most comprehensive attempt to date to obtain a quantitative understanding of urban air pollution. Its aim is to describe the complex relationships between emissions to the atmosphere, atmospheric dispersions and transformation processes, and ambient concentrations of pollutants. In addition, numerous corollary studies are planned under the RAPS "umbrella." An accurate, detailed and comprehensive inventory of emission to the atmosphere constitutes a basic input to this understanding. The RAPS emission inventory was planned to provide far more detailed information than has been available anywhere in the past; its aim is to obtain hourly data for key pollutants based insofar as possible on measured values. Thus, emission data should be available for a base period of a year, commensurate in detail and accuracy with data on ambient concentrations and micrometeorological information gathered by the Regional Air Monitoring Stations. The ultimate value of the RAPS Study will, it is hoped, not be confined to the St. Louis area, but rather will provide a model for future studies of this type in other areas. For this reason the National Air Data Branch provided complete documentation of all efforts connected with the assembly of the regional emission inventory so that the techniques and methodology developed for this project will be applicable to future studies. EPA CONTACT: Schiermeier, F. A.

600/3–76–012 PE 1A1008 GRANT NO. 802966–01

Study of Pan-Type Compounds and Related Precursors BY I. J. Solomon, and M. Lustig, IIT Research Institute Chicago, IL

This work was undertaken to search for preparative procedures for PAN, to study its structure and properties, and to ellucidate more clearly the nature of its formation and decomposition. An ideal preparative procedure for PAN had been found, high yields of PAN have been obtained, and a satisfactory preparative g.1.c. technique has been adapted for its purification. The results of the synthetic studies tend to confirm prior conclusions, but the decomposition of PAN does not proceed entirely the way previously described. The results from this research indicate that the acyl and acylperioxy radicals are precursors to PAN in photochemical environments containing acyl derivatives, NO_x, and oxygen. In contrast to prior investigations, however, several decomposition products of PAN have been found that were not previously reported, that is, hydrocarbons and oxygen have been found as products in the present study. Additional characterization data have been obtained that corroborate the structure established for PAN. EPA CONTACT: Hanst, P. L. 8–629–2201

600/3–76–013 PE EHA541 IN-HOUSE PROJECT

Bioenvironmental Impact of a Coal-Fired Power Plant Second Interim Report, Colstrip, Montana, June 1975 BY R. A. Lewis, N. R. Glass, and A. S. Lefohn, National Ecological Research Laboratory, EPA Corvallis, OR

This document describes the progress of an investigation that attempts to characterize the impact of air pollutants on a total (grassland) ecosystem. More importantly, it is the first to attempt to generate methods to predict bioenvironmental effects of air pollution before damage is sustained. We expect to observe complex changes in ecosystem dynamics as a function of relatively long term, chronic pollution challenge. By studying a rather broad range of interacting variables, we hope to isolate some as sensitive and reliable measures of air pollution impact. The approach employed requires (1) the use of reasonably comprehensive models of component populations of the ecosystem; (2) the use of appropriately structured field and laboratory experiments; and (3) evaluation of physiological and biochemical functions that may serve as specific indicators of air pollution stress. The study will establish one part of the cost/benefit matrix that will provide for the normalization of environmental impact information. Included in the study are the characterization of the effects of coalfired power plant emissions upon plant and animal community structure; primary production, invertebrate animal consumers, and decomposers; plant and animal diseases; both beneficial and harmful insects; indicators and predictors of pollution (e.g., lichens and honeybees); physiological responses of plants and vertebrate animals; insect behavior (mainly of honeybees) and production; the behavior, reproduction and development, population biology, health and condition of vertebrate animals. EPA CONTACT: Lefohn, A. S. 8–420–4624

600/3–76–014 PE 1BA029 ROAP/TASK 25 ALP 002 IN-HOUSE PROJECT

Influence of Land Use on Stream Nutrient Levels BY J. M. Omernik, Environmental Research Laboratory, EPA Corvallis, OR

National Eutrophication Survey (NES) data for 473 non-point type drainage areas in the eastern United States were studied for relationships between drainage area characteristics (particularly land use) and nutrient levels in streams. Both the total and inorganic forms of phosphorus and nitrogen concentrations and loads in streams were considered. The objectives were to (1) investigate these relationships, as they were evidenced by the NES data and (2) develop a means for estimating stream nutrient levels from knowledge of "macro" drainage area characteristics. Mean nutrient levels were considerably higher in streams draining agricultural watersheds than in streams draining forested watersheds. The levels were generally proportional to percentages of land in agriculture, or the combined percentages of agricultural and urban land use. Variations in nutrient loads (exports) in streams, associated with differences in land use categories, were not as pronounced as the variations in nutrient concentrations. This was apparently due, in large part, to differences in areal stream flow from different land use types. Regression analysis of the combined percentages of agricultural and urban land uses against both the total and inorganic forms of phosphorus were performed. Equations for these analyses, together with maps illustrating the equations' residuals offer a limited predictive capability and some accountability for regional characteristics. EPA CONTACT: Omernik, J. M. 8–420–4613

NEW REPORT ABSTRACTS SECTION

600/3–76–015 PE 1AA008 IN-HOUSE PROJECT

Effects of Gaseous Pollutants on Materials—A Chamber Study BY F. H. Haynie, J. W. Spence, and J. B. Upham, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

This document describes a comprehensive laboratory study using specially designed controlled environment exposure chambers to assess the effects of gaseous air pollutants (sulfur dioxide, nitrogen dioxide, and ozone) on a variety of materials. Materials included weathering steel, galvanized steel, aluminum alloy, paints, drapery fabrics, white sidewall tire rubber, vinyl house siding, and marble. The exposure experiment was statistically designed using a two-level factorial arrangement to identify the environmental factors or combination of factors, or both, that cause materials damage. Over 200 different direct and synergistic effects were examined. The study revealed that only 22 of the possible effects were statistically significant at better than a 95% confidence level. Sulfur dioxide, relative humidity, and the interaction between them, were the main factors causing effects. A number of empirical functions were developed that relate materials effects to various factors causing the effects. An exceptionally good relationship was obtained for the corrosion of weathering steel. The lack of statistical significance that was found for the large majority of effects that were studied is equally as important as the significant effects. As a result a large number of material-pollutant combinations may be excluded from further detailed study. EPA CONTACT: Upham, J. B. 8–629–2891

600/3–76–016 PE 1AA003 ROAP/TASK 26 AAI 413 CONTRACT NO. 68–02–1081

Regional Air Pollution Study: Expeditionary Research Program, Summer 1975 BY W. C. Zegel, Rockwell International Corporation Thousand Oaks, CA

The immediate goal of the Regional Air Pollution Study (RAPS) is the evaluation of existing local and regional scale air quality simulation models. Inherent in this effort is the creation of a comprehensive, accurate, and readily-retrieval data base containing emission rates, concentrations of atmospheric pollutants, and pertinent meteorological measurements. An integrated program has been prepared for the conduct of the RAPS which includes data collection on both a routine and an expeditionary basis. This report describes the Summer 1975 RAPS Expeditionary Research Program which was designed to procure detailed atmospheric observations to better understand selected pollutant and atmospheric phenomena. Data collection activities are described in each of four areas: (1) Pollutant Transport and Dispersion; (2) Pollutant Transformation and Removal; (3) Pollutant Measurement Program; and (4) Pollutant Effects Studies. The general experiment design, quality assurance plans, data management procedures, and operational requirements are presented for each experiment to be conducted. Finally, existing information is summarized in the form of status reports for three basic elements of activity within RAPS: (1) Model Evaluation and Development; (2) RAPS Data Bank; and (3) Emission Inventories. EPA CONTACT: Schiermeier, F. A.

600/3–76–017 PE 1AA008 IN-HOUSE PROJECT

Photochemical Oxidants in the Ambient Air of the United States BY B. Dimitriades, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

The problem of photochemical oxidants in the ambient air of the United States is examined with respect to its nature, magnitude, and present day control. Concentration levels of ozone, nitrogen dioxide, peroxyacetyl nitrate, and other photochemically formed pollutants are surveyed, and their effects on human health, vegetation, materials, and economic impacts discussed. Oxidant precursors, hydrocarbons, and nitrogen oxides are reviewed with regard to ambient concentrations and emission rates and in terms of chemical reactions that produce oxidants. Oxidant control efforts are discussed with specific emphasis placed on scientific approaches, emission control methods, costs of control, and control legislation. EPA CONTACT: Dimitriades, B. 8–629–2706

600/3–76–018 PE 1AA008 ROAP/TASK 21 AKC 03 CONTRACT NO. 68–02–1714

Transport of Oxidant Beyond Urban Areas BY W. S. Chester, J. L. Gemma, D. W. Joseph, P. R. Stricksel, and G. F. Ward, Battelle Columbus Laboratories Columbus, OH t+1 The 1974 investigation of oxidants in the mid-western United States involved several research groups situated in various points in the Ohio Valley. The Battelle Laboratory group was positioned in Dayton, Ohio. The data collection was carried out over a 20-day period between July 17 and August 12, 1974. Interpretations of the results are discussed in terms of statistical, graphical, chemical, and meteorological analyses of the data. The data suggest that no single source of ozone, be it urban transport, natural, emissions, stratospheric, etc. can account for the ozone patterns observed in this and other studies. EPA CONTACT: Bufalini, J. J. 8–629–2422

600/3–76–019 PE 1FA083 IN-HOUSE PROJECT

Ruthenium: Its Behavior in Plant and Soil Systems BY K. W. Brown, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

The information published concerning the behavior of ruthenium in plant and soil systems is reviewed and areas needing further investigation are identified. Studies in the literature indicate that ruthenium is one of the most chemically complex elements, thereby challenging the initiative and investigative abilities of both physical and biological scientists. Ruthenium can become extremely mobile in soils at one time, and then become tightly bound the next. The retention and binding of ruthenium on soil colloids and other environmental media have been demonstrated to be both a physical and chemical phenomenon; however, these binding mechanisms have largely remained unidentified and uninvestigated. Evidence indicates that ruthenium can become incorporated into plants through either a root or foliar exposure. Mechanisms of vegetative incorporation and retention of ruthenium are still not fully understood, thereby requiring continued study. EPA CONTACT: Brown, K. W.

NEW REPORT ABSTRACTS SECTION

600/3-76-020 **PE 1BA026** **GRANT NO. 802359**

Numerical Models of Lake Currents BY W. Lick, Case Western Reserve University Cleveland, OH

As part of a research effort sponsored by the U.S. Environmental Protection Agency to study the dispersion of contaminants in near-shore areas of large lakes, we have developed numerical models which are capable of realistically describing the currents throughout large lakes and, in particular, in the near-shore regions of these lakes. This report summarizes our work to date on these hydrodynamic models. In our work, the emphasis has been on the development and use of three-dimensional models. Three basic models and applications of these models are presented here. The models are: (1) a steady-state, constant-density model; (2) a timedependent, constant-density model; and (3) a time-dependent, variabledensity model. Each model has its own limitations and has certain advantages over the others. Applications of each model, especially to flows in near-shore regions, have been made and are discussed. Vertically averaged models have also been used by us, usually in parametric studies, and a brief summary of these models is also given. A list of all publications by us resulting from or pertinent to this project is given in Section X of this report. EPA CONTACT: Richardson, W. L.

600/3-76-021 **PE 1BA608** **GRANT NO. 800171**

Temperature, Infectious Diseases and the Immune Response in Salmonid Fish BY J. L. Fryer, K. S. Pilcher, J. E. Sanders, J. S. Rohovec, J. L. Zinn, W. J. Groberg, and R. H. McCoy, Oregon State University Corvallis, OR

Investigations of the effect of temperature on infections of salmonid fish were conducted. *Aeromonas salmonicida* infection was studied in chinook salmon and steelhead trout; *Aeromonas liquefaciens* infection was studied in chinook and coho salmon. In all cases, mortality rates were high at 64 to 69 F; usually moderate at 54 to 59 F; and low or zero at 39 to 49 F. Progress of the infections was accelerated at higher temperatures and retarded at lower temperatures. Bacterial kidney disease was studied in coho salmon and steelhead trout. The temperature range of 44 to 54 was optimal for the development of fatal infection as indicated by mortality rates of 78 to 100%. Higher temperatures had a suppressing effect, which was marked at 69 F. Temperatures of 59 to 69 F were optimal for the formation of agglutinating antibody when juvenile coho salmon were injected with a killed suspension of *A. salmonicida*. At lower temperatures less antibody was formed and no significant amount was produced at 39 F 60 days after injection of antigen. Oral immunization of juvenile coho salmon with a vaccine consisted of formalin killed *Vibrio anguillarum* cells incorporated in their diet, protected them against fatal infection when the fish were held at temperatures from 39 to 69 during immunization. EPA CONTACT: Bouck, G. R.

600/3-76-022 **PE 1BA023** **GRANT NO. 800371**

Degradation of Persistent Pesticides by Algae BY J. C. O'Kelley, and T. R. Deason, Alabama, University of University, AL

In this investigation interactions of 12 pesticides with 37 strains of fresh water algae were studied in an effort to determine something of the variability in responses of fresh water algae to the variety of pesticides in use or projected to be used in the future. Three interactions were investigated. One was the toxicity of the pesticides to these algae. Another was the sorption of several of the pesticides by some of the species of algae. The third was the possibility that some of the pesticides can be degraded by action of algae. In general it was found that sensitivity of algae to pesticides varied greatly with the strains tested. Sorption of methoxychlor appeared to be mainly physical, since much of the methoxychlor sorbed was exchangeable. The butoxyethyl ester of 2,4-D (2,4-DBE) was not sorbed to a significant extent by two green algae tested, and sorption of carbaryl was very slow. Malathion can be degraded by algae in the presence of light. One breaddown product, malathion monoacid (beta form), appeared as the malathion was being degraded, and later disappeared. Investigations of the fate of 2,4-DBE and methoxychlor in algal cultures suggest that the fate of 2,4-DBE and methoxychlor in algal cultures suggest that these pesticides may also be degraded by algal activity. EPA CONTACT: Paris, D. F.

600/3-76-023 **PE 1BA608** **GRANT NO. 800372**

Geochemical Interactions of Heavy Metals in Southeastern Salt Marsh Environments BY H. J. Windom, Skidaway Institute of Oceanography Savannah, GA

This report summarizes the results of a three year study of the transport, fate, and geochemical interactions of mercury, cadmium and other inorganic pollutants in the southeastern coastal littoral-salt marsh environment. The general objectives of the study were to determine: (1) the rate of input of these materials to salt marsh estuaries, (2) the geochemical interaction they experience there, and (3) their ultimate fate in coastal littoral waters. The results provide a base for future evaluation of the rates of inputs of the metals studied and their existing concentrations in the water and sediment column of salt marsh estuaries. The interactions of metals with organic matter in rivers and estuaries and their effect on transport and fate are discussed. The effects of processes such as flocculation, precipitation, adsorption, and desorption from particles in estuaries are evaluated. The distribution and rate of accumulation of Hg, Cd and other metals in salt marsh sediments are compared to their inputs to determine the amount of these metals that ultimately reach coastal littoral waters. And finally, the residence time of Hg and Cd in coastal littoral waters is estimated from their input rates and concentrations. EPA CONTACT: Baumgartner, D. J.

NEW REPORT ABSTRACTS SECTION

600/3–76–024 **PE 1AA008** **GRANT NO. 800984**

Investigation of Gas Phase Ozonolysis Reactions BY D. G. Williamson, California Polytechnic State University San Luis Obispo, CA

A simple gas phase stopped-flow apparatus has been used to determine the rates and stoichiometry for the reactions of ozone with ethylene, propene, 1-butene, methylpropene, cis-2-butene, and trans-2-butene. Measurements of the intensity of light scattered by aerosols generated by the reaction of ozone with trans-2-butene and with ethylene were made as a function of reaction time and initial reactant concentration. EPA CONTACT: Bufalini, J. J. 8–629–2422

600/3–76–025 **PE 1FA083** **IN-HOUSE PROJECT**

Biological Transfer of Plutonium via *in vivo* Labeled Goat's Milk BY W. W. Sutton, A. A. Mullen, S. R. Lloyd, and R. E. Mosley, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

Three lactating goats were given intravenous injections of citratebuffered plutonium nitrate at a rate of 75 microcuries per animal per day for 3 consecutive days. Two goats received plutonium-238 and one received plutonium-239. The goats were hand milked at 8-hour intervals and portions of milk were (1) fed to juvenile goats, (2) fed to adult and juvenile rats, and (3) analyzed for plutonium content. Five days after dosing, one plutonium-238 injected goat was sacrificed and the remaining two goats were sacrificed 28 days after dosing. In all three goats approximately one percent of the total plutonium dose was transferred to the milk by the fifth post-treatment day. Plutonium retained by the tissues was deposited primarily in the liver and bone. *In vitro* plutonium-labeled milk was also fed to groups of rats and juvenile goats. Tissue concentrations of plutonium from juvenile goats which had received either *in vivo* or *in vitro* labeled milk were somewhat variable. Due possibly to this, within group variability and the small number of animals per group (two) there were no clearly discernible differences between treatments. The percentage of dose retained in liver and carcass (pelt and gastrointestinal tract removed) of adult and juvenile rats was also compared after receiving the various plutonium doses. The only comparison point to show a consistent trend was the observation that, as expected, juvenile rats retained more of the ingested dose than the adult animals. EPA CONTACT: Sutton, W. W.

600/3–76–026 **PE 1BA608** **IN-HOUSE PROJECT**

Design Guidelines for Agricultural Soil Warming Systems Utilizing Waste Heat BY D. L. Slegel, Environmental Research Laboratory, EPA Corvallis, OR

This work was performed to provide potential users of soil warming systems with some general guidelines for the design of a soil warming installation. Although a detailed design is not included, the general configuration of such a system is discussed. A computer program that solves the equations governing heat and water transfer in soils was used to simulate the operation of a soil warming system composed of a series of buried pipes at uniform spacing and depth carrying warm water. The results included temperature and moisture content distributions for various soil warming system pipe spacings and depths and for varying weather conditions. Annual temperature cycles are presented for Portland, Oregon; Athens, Georgia; and St. Paul, Minnesota; for soil with no heating; and for soil with a continuously operating soil warming system. The conclusions include suggested soil warming system pipe spacing, depth and size. Recommendations concerning irrigation methods are also included. EPA CONTACT: West, C. L. 8–420–4609

600/3–76–027 **PE 1BA022** **GRANT NO. 802633**

Biological Impact Caused by Changes on a Tropical Reef BY R. S. Jones, R. H. Randall, and M. J. Wilder, Guam, University of Agana, GU A biological study is conducted on a fringing coral reef adjacent to a thermo-electric power plant on Guam, before and after release of plant effluent. The before study shows corals of the reef front, submarine terrace, and seaward slope to be devastated because of a recent infestation by the crown-of-thorns starfish, *Acanthaster planci* (L.). Introduction of the effluent is shown to be responsible for recent destruction of reef margin corals. Effluent is found to stratify beyond the surf zone and is no longer a threat to benthic organisms. Coral transect studies show an increase in recent coral re-colonization on the reef front, terrace and slope since the *Acanthaster* infestation. No such recovery is evident in benthic habitats of the reef margin, exposed to effluent. Thermal simulation experiments, performed on a series of reef corals in the laboratory, suggest mean upper tolerance limits for the corals between 30 and 33°C. These temperatures are common on the reef margin adjacent to the power plant. Sublethal elevation of temperature is shown to reduce growth rate in some of the coral species. EPA CONTACT: Perez, K. T.

NEW REPORT ABSTRACTS SECTION

600/3–76–028 PE 1BA022 CONTRACT NO. 14–12–874

Survey of Marine Communities in Panama and Experiments with Oil BY C. Birkeland, A. A. Reimer, and J. R. Young, Smithsonian Tropical Research Institute Balboa, CZ

Baseline surveys were conducted on both the Caribbean and Pacific coasts of Panama. The structure of macroinvertebrate communities along the Caribbean transect are presented from data collected for over 500 identified species in 108 samples including a total of over 50,000 specimens. Recruitment to benthic communities was investigated with settling plates. The Caribbean was found to be seasonal in species occurrence while the Pacific was seasonal in productivity. The effects of oil pollution on tropical intertidal marine communities were tested by precisely controlled experiments utilizing tarry Bunker C and volatile marine diesel oils. Field experiments were performed on a Caribbean intertidal reef flat community, a Pacific rocky shore community, settling plates in both oceans, mangrove trees sprayed with oil on the leaves and/or stilt roots and on coral growth. Bunker C oil had a greater detrimental effect than did marine diesel oil on coral growth. Marine diesel oil had a greater detrimental effect than did Bunker C oil on fouling communities of settling plates. When comparing experimentals with controls, growth rates were used as an indicator of the presence of unobserved physiological stress or damage and a quantitative index of the cost of repair. Susceptibility to oil pollution varied significantly with location and time of year so that very precise controls were required in the experiments. EPA CONTACT: Phelps, D. K.

600/3–76–029 PE 1AA008 IN-HOUSE PROJECT

Smog Chamber Conference Proceedings BY B. Dimitriades, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

Smog chamber methodology was reviewed with respect to its present status and utility in developing photochemical pollution control strategies. Measurement of NO and O_3 in chamber atmospheres was judged to be satisfactory; measurement of NO_2, non-methane hydrocarbon, and sulfate presented problems. Surface effects and background contamination problems were minimal in large (hundreds of cubic feet) chambers made of Teflon film. Compared to indoor chambers, outdoor chamber operations were less costly and yielded more valid data in some respects. Specific sets of smog chamber data were used to estimate oxidant-related control requirements for California's South Coast Air Basin. Such estimates were judged to be more useful relative to those based on aerometric data analysis in that the role of NO_x in oxidant formation was considered quantitatively. Other applications of smog chamber methodology in photochemical air pollution research were discussed. EPA CONTACT: Dimitriades, B. 8–629–2706

600/3–76–030 PE 1AA008 CONTRACT NO. 68–02–0799

Fate of Nitrogen Oxides in the Atmosphere BY C. W. Spicer, Battelle Columbus Laboratories Columbus, OH

A field study was conducted to determine the distribution and ultimate fate of nitrogen oxides in the atmosphere. Researchers sampled and monitored the air for five weeks in St. Louis, Missouri, and for five weeks in West Covina, California. Also measured were meteorological parameters—wind direction and speed, temperature, relative humidity, and solar intensity. On the basis of the monitoring data, the chemical analyses of collected samples, and NO_x loss-calculations, the results of the study indicate that nitrogen oxides are removed slowly from the atmosphere. This was true at both locations. EPA CONTACT: Bufalini, J. J. 8–629–2422

600/3–76–031 PE 1AA006 IAG NO. IAG-D5–0416

Effects of Ozone on Nitrogen Fixation in Ladino Clover BY U. Blum, and M. Letchworth, North Carolina State University Raleigh, NC

Research was performed to determine the effects of ozone on ladino clover growth, nodulation, nitrogen fixation, nitrogen content, phenol content, energy value and root exudates. Plants were exposed once or twice to carbon-filtered air, 30 or 60 pphm ozone for 2 hours. The effects of ozone on growth, nitrogen fixation, % nitrogen, total nitrogen and nodulation varied with age of plant and ozone concentration. Caloric content of tops (plants 4 weeks old when exposed) was reduced with two exposures of 30 or 60 pphm ozone. Root caloric content was not affected. Phenol content of tops and roots (plants 6 weeks old when exposed) was reduced with two 30 pphm ozone exposures. Clover exudates were not detectably modified by ozone exposure. EPA CONTACT: Raniere, L. C.

600/3–76–032 PE 1AA006 IAG NO. IAG-D5–0416

Effects of Sulfur Dioxide and/or Ozone on Several Oat Varieties – 1975 Annual Report BY W. W. Heck, and J. A. Dunning, North Carolina State University Raleigh, NC

Nine experimental designs were run to determine the effect of sulfur dioxide on the important Southeastern oat variety – Carolee. The designs were run under controlled conditions and looked at sulfur dioxide concentration (25–300 pphm), ozone interactions, growth and exposure temperatures, growth and exposure humidities, growth and exposure light intensities, nutrient sulfur levels, number of exposures and exposures ages, and a screen for growth conditions. Plants were grown to from 28 days to 84 days before final harvest. Top dry wt, root dry wt, number of tillers and injury were determined for all experimental designs except # 5 and # 8. The fifth design also included yield measurements and the eighth did not include the biomass data. The 75 pphm treatments for 1.5 hrs were close to a threshold dose. Growth environmental factors affected the response of the plants and in some cases exposure conditions caused an effect. Sulfur nutrition was a significant factor and showed an interaction with SO_2 concentration on several response measures. Foliar injury was highly correlated with growth reductions. Several designs studied the effects of ozone alone (# 6, 7, 8) or in combination with sulfur dioxide (# 13). Two designs utilized 2 additional oat varieties, Salem and Coker 227 (# 8, 9). EPA CONTACT: Raniere, L. C.

NEW REPORT ABSTRACTS SECTION

600/3–76–033 **PE 1BA608** **CONTRACT NO. 68–01–0151**

Acute Toxicity of Certain Pesticides to *Acartia tonsa* Dana BY F. H. Khattat, and S. Farley, Hazleton Laboratories Vienna, VA

The acute toxicity to the marine copepod *Acartia tonsa* Dana of four technical grade insecticides was determined by bioassay using standardized procedures, homogeneous populations and constant laboratory conditions. At a water temperature of 17 ± 1°C, the 96-hour median lethal concentrations or tolerance limits for methyl parathion, Azodrin, diazinon and toxaphene were computed as 0.89 milligrams per liter, 0.24 milligrams per liter, 2.57 micrograms per liter and 7.2 nanograms per liter, respectively. Residue analysis for diazinon at zero and 96-hour exposure time revealed that the amounts of diazinon uptake by three algal organisms is greater than amounts concentrated by the copepod. The toxicity of higher concentrations above 2.0 ppm (2 milligrams per liter) has offset copepod uptake, while at lower concentrations, quantities concentrated by *Acartia* are negligible. Concurrently, the world literature was surveyed for supporting toxicity data of these chemicals to closely related species. EPA CONTACT: Gentile, J. H.

600/3–76–034 **PE 1BA032** **CONTRACT NO. 68–03–2176**

Effect of Mechanical Cooling Devices on Ambient Salt Concentration BY H. E. Hunter, ADAPT Service Corporation Reading, MA

This report presents an analysis of the airborne salt concentration data collected during the demonstration of the salt water mechanical cooling devices at the Turkey Point power plant. The data were analyzed using the ADAPT family of empirical analysis programs which are based on the concept that empirical analysis should be preceded by the development of an optimal (in the Karhunen-Loeve sense) representation of the data. The analysis presented in the report shows that the increase in the background salt concentration due to the cooling tower was less than the measurement accuracy of approximately three to five micrograms per cubic meter. The analysis also shows that the spray modules used in this test probably increased the background concentration at one station located approximately 430 meters from the spray module by approximately three micrograms per cubic meter. These results were obtained by analysis of statistical summaries of the difference between the measured concentration with the cooling device operating and the calculated background concentration for the same conditions. EPA CONTACT: Tichenor, B. A.

600/3–76–035 **PE 1AA601** **IN-HOUSE PROJECT**

General Motors/Environmental Protection Agency Sulfate Dispersion Experiment Selected EPA Research Papers BY R. K. Stevens, P. J. Lamothe, W. E. Wilson, and J. L. Durham, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

In the fall of 1975, General Motors conducted an extensive field experiment at the GM proving grounds in Milford, Michigan. The purpose of the experiment was to measure the concentrations and assess characteristics of aerosols, especially sulfates and sulfuric acid, emitted by a fleet of catalyst-equipped cars operated under simulated freeway conditions. In addition, emissions dispersion and meterological parameters were measured; this data served as input for developing a plume dispersion model. At the invitation of General Motors, EPA along with their contractors and grantees, participated in this experiment. This report consists of several important research papers that discuss and present the results of studies carried out by EPA during the GM experiment. EPA CONTACT: Stevens, R. K.

600/3–76–036 **PE 1BA608** **GRANT NO. 801035–01**

Effects of Chlorine and Sulfite Reduction on Lake Michigan Invertebrates BY A. M. Beeton, P. K. Kovacic, and A. S. Brooks, Wisconsin, University of Milwaukee, WI

The acute toxicity of residual chlorine was determined for the copepod *Cyclops bicuspidatus thomasi* and the rotifer *Keratella cochlearis*. The 96-hour TL_{50} value for *Cyclops* was 0.084 mg/1 total residual chlorine added as monochloramine. When *Cyclops* was exposed to sodium hypochlorite the 96-hour TL_{50} was 0.069 mg/1 total residual chlorine. The 4-hour TL_{50} value for *Keratella* was 0.019 mg/1 total residual chlorine added as monochloramine. Chemical studies determined that sodium sulfite was an efficient, inexpensive chemical agent for reducing chlorine residuals which did not produce undesirable by-products. Complete reduction was accomplished in less than 20 seconds with a calculated k_{min} of 43 sec^{-1}. Bioassay studies indicated that sodium sulfite added to chlorinated water completely eliminated the acute toxicity of residual chlorine to both *Cyclops bicuspidatus thomasi* and *Keratella cochlearis*. Field studies in Milwaukee Harbor and adjacent Lake Michigan indicated that measurable chlorine residuals were confined to a very small area surrounging the effluent from the Jones Island Sewage Treatment Plant. Significant reductions in the populations of benthic organisms were observed in the effluent plume area after the start of chlorination. EPA CONTACT: Olson, D. T.

NEW REPORT ABSTRACTS SECTION

600/3–76–037 PE 1BA029 IN-HOUSE PROJECT

Tropic Classification of Lakes Using LANDSAT-1 (ERTS-1) Multispectral Scanner Data BY D. H. P. Boland, Environmental Research Laboratory, EPA Corvallis, OR

This study evaluates the Earth Resources Technology Satellite One (ERTS-1; i.e., LANDSAT-1) multispectral scanner (MSS) as a means of estimating lacustrine trophic state. Numerical classificatory methods are employed to ascertain the trophic character of 100 lakes in Minnesota, Wisconsin, Michigan, and New York. Principal components analysis is used to derive a multivariate trophic state index (PC1) using the trophic indicators chlorophyll *a*, conductivity, inverse of Secchi depth, total phosphorus, an algal assay yield, and total organic nitrogen. A binary masking technique is used to extract lake-related MSS data from digital tapes (CCTs). MSS color ratio models are developed which give good estimates of Secchi depth and fair estimates of chlorophyll *a* levels. Trophic state, as defined by lake position on the first principal component axis (PCI), is predicted using MSS color ratio regression models. Each date of LANDSAT-1 coverage has its unique model. An automatic image processing technique is employed to classify a group of Wisconsin lakes. The utility of the LANDSAT-1 MSS is most apparent when the seasonal contrasts between lakes at different points on the trophic scale are at a maximum. Periods of excessive cloud cover, frames with faulty or missing MSS data, and the need for some ground truth, impair, but do not preclude its use in lake monitoring and classification. The use of CCTs in conjunction with digital image processing techniques is essential if the maximum benefits are to be derived from the LANDSAT-1 MSS. EPA CONTACT: West, C. L. 8–420–4609

600/4–76–001 PE 1AA603 IN-HOUSE PROJECT

Determination of Height for Stack Near Building—Wind Tunnel Study BY W. H. Snyder, and R. E. Lawson Jr., Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC

Wind tunnel tests were conducted to determine the validity of the "two-and-one-half-times" rule frequently used to calculate a necessary height for a stack in the vicinity of a building. Model stacks and buildings were placed in a simulated atmospheric boundary layer in a meteorological wind tunnel. Smoke was used for flow visualization and methane for quantitative concentration measurements downwind of the building. These studies showed that the two-and-one-half-times rule for the determination of a necessary stack height in the vicinity of a building is adequate for a building whose width perpendicular to the wind direction is twice its height, but that it is unnecessarily conservative for a tall thin building. An alternative rule, called Briggs' alternative, was shown to be adequate. EPA CONTACT: Snyder, W. H. 8–629–2811

600/4–76–002 PE 1AA009 GRANT NO. 801102

Modeling of the Effects of Pollutants and Dispersion in Urban Atmospheres BY R. Viskanta, R. W. Bergstrom Jr., and R. O. Johnson, Purdue Research Foundation West Lafayette, IN

The short-term effects of radiatively participating pollutants upon the thermal structure and dispersion in an urban atmosphere were studied by constructing one- and two-dimensional transport models for the planetary boundary layer. Special attention was focused on the interaction of solar and thermal radiation with gaseous and particulate pollutants as well as natural atmospheric constituents. EPA CONTACT: Peterson, J. T. 8–629–4552

600/4–76–004 PE 1BA027 ROAP/TASK 16 ADN 027 IN-HOUSE PROJECT

Techniques for Optimizing a Quadrupole GC/MS/Computer System BY M. H. Carter, Environmental Research Laboratory, EPA Athens, GA

Techniques and procedures have been developed for maintaining the stability and maximizing the sensitivity of the Finnigan 1015-System 150 Gas Chromatograph/Mass Spectrometer/Computer (GC/MS/Computer) System. Causes of instability include poor vacuum tube performance and high temperature in the electronics chassis. Sensitivity is maximized by appropriate maintenance and adjustment techniques. Methods have been developed for increasing the utility of the data collected by the GC/MS/Computer System. These include techniques for acquiring better data and for extracting the most information from the data that have been acquired. EPA CONTACT: Carter, M. H.

600/4–76–005 PE 1BA027 ROAP/TASK 09 ABZ 018 GRANT NO. 803006–01–

Determining Tetrafluoroborates, an Evaluation of Fluoroborate Anion Selective Electrode BY B. T. Duhart, Bennett College Greensboro, NC

The Orion fluoroborate electrode was evaluated to determine its applicability to water and waste. The calibration curve was Nernstian down to 0.6 mg/1 and the slope of the curve was 56 millivolts per decade change. Interference of nitrate and sulfate was studied. Low results were obtained for samples that contained 50 mg/1 of sulfate and 10 mg/1 tetrafluoroborate or 10 mg/1 sulfate and 1 mg/1 tetrafluoroborate. To determine 1 mg/1 of tetrafluoroborate, nitrate should be absent. The fluoroborate electrode can be used directly to determine some selected fluoroborates. EPA CONTACT: Gales Jr., M. E. 8–684–7307

NEW REPORT ABSTRACTS SECTION

600/4–76–006 **PE 1HD621** **IN-HOUSE PROJECT**

Coding Manual for the Quality Assurance Performance Audit for Aerometric Data BY R. C. Rhodes, and D. H. Fair, Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC

Appendix A of Guideline Document OAQPS 1.2–020, "Guidance for Decentralization and continued Operation of the NASN," provided instructions for performing quality assurance performance audits for the National Air Surveillance Network. This coding manual furnishes detailed coding instructions to those who perform the audits and record the data for transmittal to EPA. EPA CONTACT: Rhodes, R. C. 8–629–2279

600/4–76–007 **PE 1AA009** **CONTRACT NO. 68–02–1297**

Spectral Modeling of Atmospheric Flows and Turbulent Diffusion BY A. Bass, and S. A. Orszag, Flow Research, Inc. Cambridge, MA

This report presents a survey of discrete spectral and pseudospectral numerical methods to simulate atmospheric flow and turbulent diffusion. Some applications of these methods to air quality simulation modeling are presented. A three-dimensional spectral incompressible numerical model is described in detail. Computational resource limitations precluded successful evaluation of eddy Austauch coefficients. Some numerical results are presented for the rate of relaxation of anisotropic flows. Recommendations and suggestions for further research are made concerning the prospective utility of these spectral methods for air quality simulation modeling. EPA CONTACT: Calder, K. L. 8–629–4545

600/4–76–008 **PE 1HD621** **CONTRACT NO. 68–02–1778**

Measurement of Atmospheric Sulfates: Literature Search and Methods Selection BY F. J. Bergman, Midwest Research Institute Kansas City, MO

A thorough literature search for methods of sulfate analysis has been completed. The results of the search with a very brief abstract of each method are attached as an appendix. The analytical methods have been reviewed for strengths and weaknesses, and the two most promising methods have been selected. Based on this review, the two recommended methods are the methyl thymol blue method described by A. L. Lazrus and the barium chloranilate method modified by H. N. S. Schafer and developed by R. J. Bertolacini and J. E. Barney, II. The results of this phase of the investigation have been submitted to EPA. Acceptance of the two recommended methods and approval to complete the investigation were received October 15, 1975. EPA CONTACT: Purvis, B. 8–629–2275

600/4–76–009 **PE 1AA009** **CONTRACT NO. 68–02–1305**

Mobile Lidar Study of the Los Angeles Mixing Layer BY D. T. Liu, System Innovation and Development Corporation Rolling Hills Estates, CA

This program was conducted in support of the Los Angeles Reactive Pollutant Program (LARPP), jointly sponsored by the Coordinating Research Council and the U.S. Environmental Protection Agency. A mobile Lidar system, mounted in a van, was used to depict the temporal and spatial variations of the mixing depth over the Los Angeles Basin, during the LARPP field tests in the fall of 1973. Lidar profiles are interpreted and compared to vertical temperature and moisture profiles measured by helicopter and standard meteorological sounding techniques. Lidar echo anomalies are classified into mixing layer height or significant levels based on backscatter slop evaluation. The qualitative aspects of each backscatter signature are used in describing the nature and altitude of inversion bases, moisture layers, stratus and fog layers. EPA CONTACT: Hosler, C. R. 8–629–4543

600/4–76–010 **PE 1BB612** **IN-HOUSE PROJECT**

Quantitative Method for Toxaphene by GC-CI-MS Specific Ion Monitoring BY A. D. Thruston Jr., Environmental Research Laboratory, EPA Athens, GA

A method was developed for the identification and quantification of toxaphene using a Specific Ion Monitoring (SIM) program with GC-CI-MS. Interferences from DDT's and Arochlor 1260 are eliminated or minimized. GC-CI-MS was also used to distinguish toxaphene from strobane. EPA CONTACT: Thruston Jr., A. D.

NEW REPORT ABSTRACTS SECTION

600/4–76–011 PE 1HA327 IN-HOUSE PROJECT

Measurement of Strontium-89 and Strontium-90 in Environmental Waters: A Tentative Reference Method Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

A tentative reference method for the measurement of strontium-89 and –90 in environmental waters is described. Samples of environmental water sources are collected, preserved with acid-strontium carrier, and analyzed for strontium-89 and/or strontium-90. Strontium-89 and –90 are separated from the sample water by precipitating with stable strontium carrier as carbonate. The strontium carbonate is dissolved, yttrium-90 separated, the strontium reprecipitated as carbonate, filtered, and counted for the combined strontium-89 and –90 activity. The yttrium-90 is allowed to grow in from the strontium-90 activity; the strontium carbonate is redissolved; the yttrium-90 is separated, precipitated, and counted for the strontium-90 determination. The strontium-89 activity is then determined by difference of the total strontium-89 and –90 and the separate strontium-90 activities. Recoveries are determined from the added and found (recovered) strontium carrier. Counting efficiencies are determined with prepared standard reference samples. Results are reported in pCi/liter. EPA CONTACT: Douglas, G.

600/4–76–012 PE 1HA327 IN-HOUSE PROJECT

Measurement of Total Radium and Radium-226 in Environmental Waters: A Tentative Reference Method Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV

A tentative reference method for the measurement of total radium and radium-226 in environmental water sources is described. Samples are collected, preserved with acid-barium carrier treatment, and analyzed for total radium and/or radium-226. For samples analyzed for total radium, the radium is separated from the sample with barium and lead carriers. The barium and radium are then separated from the lead carrier, precipitated as the sulfate, filtered, and counted for alpha activity. For samples analyzed for radium-226, the radium is separated from the sample with barium carrier, dissolved and transferred to a de-emanation bubbler, the radon-222 daughter allowed to grow in, the ingrown radon-222 de-emanated from the solution and transferred to a scintillation counting cell, and alpha counted. Recoveries are determined from the added and found (recovered) barium carrier. Counting efficiencies are determined with prepared standard reference samples. Results are reported in pCi/liter. EPA CONTACT: Douglas, G.

600/4–76–013 PE 1AA003 ROAP/TASK 26 AAI 410 CONTRACT NO. 68–02–1006

Methodology for Inventorying Hydrocarbons BY P. DiGasbarro, and M. Bornstein, GCA Corporation Boston, MA

A methodology for estimating emissions of hydrocarbons to the atmosphere is described, with emphasis on emissions from stationary point and area sources. The methodology is an elaboration of the National Emissions Data System (NEDS), and is based upon, but not limited to, an inventory of hydrocarbon emissions within the Boston, MA Air Quality Control Region; emissions from motor vehicles are not considered, since they are subject to a different methodology. Sources of data, and procedures to obtain data are described. Data sources include trade associations, census figures, and wholesale suppliers. Examples are given of work sheets for compiling data, and of questionnaires with instructions for completion that can be sent to various types of establishments that are potential emission sources. Application of the methodology to the St. Louis Air Quality Control Region for development of a hydrocarbon emission inventory for the Regional Air Pollution Study is outlined. EPA CONTACT: Masser, C. C. 8–629–8395

600/4–76–014 PE 1HA327 CONTRACT NO. 68–02–0626

Collaborative Study of Particulate Emissions Measurements by EPA Methods 2, 3, and 5 Using Paired Particulate Sampling Trains (Municipal Incinerators) BY H. F. Hamil, and R. E. Thomas, Southwest Research Institute San Antonio, TX

This report presents the results of statistical analyses of data from a collaborative test using paired particulate sampling trains. The purposes of the test were to estimate the minimum variability that can be expected with the use of Method 5 and to determine the effect of spatial/temporal changes in the gas flow on a Method 5 result. The paired train consists of two mirror-image Method 5 trains in a single box, and allows two independent laboratories to obtain simultaneous particulate concentration data with probe nozzles only 5.3 cm apart. The report deals with Method 5, and also Method 2 (Velocity) and Method 3 (Stack Gas Analysis), which are called for in the use of Method 5. In addition, the particulate concentrations are converted to the applicable compliance test result for the source tested, and these are also analyzed. The latest in-house revisions of the EPA methods were used in this test, and the results contained here are applicable to these revisions. EPA CONTACT: Midgett, R. 8–629–2196

600/4–76–015 PE 1HD621 CONTRACT NO. 68–02–1728

Measurement of Atmospheric Sulfates: Evaluation of the Methylthymol Blue Method BY F. J. Bergman, and M. C. Sharp, Midwest Research Institute Kansas City, Mo

The methylthymol blue (MTB) procedure used by EPA for sulfate analysis has been subjected to a ruggedness test. The method write-up has been modified to strengthen the procedure where required. A new procedure developed by EPA for extracting sulfates from the filter samples has been incorporated in the write-up. The absorbance for the MTB procedure has been established as hyperbolic. The method, as now presented, appears to be reasonably rugged with the exception of phosphate interference, which remains a problem. A potential approach for eliminating the phosphate interference is presented. EPA CONTACT: Beard, M. E. 8–629–2785

NEW REPORT ABSTRACTS SECTION

600/5–76–001 **PE EHA547** **CONTRACT NO. 68–01–1916**

FIRST YEAR WORK PLAN for a Technology Assessment of Western Energy Resource Development BY I. L. White, Oklahoma, University of Norman, OK

This report presents a Work Plan for conducting a Technology Assessment of energy resource development in the Western U.S. The energy resources addressed are coal, oil shale, oil, natural gas, geothermal, and uranium. The geographical focus is on the states of North and South Dakota, Montana, Wyoming, Utah, New Mexico, Arizona, and Colorado. The time frame to be addressed is the period 1975–2000. The Assessment is designed to identify and quantify the diverse impacts of energy development in the West, including secondary or higher order impacts. Further, the Assessment will identify and assess policy alternatives for dealing with these impacts, with a special focus on environmental protection strategies. BY F. S. LaGrone, Radian Corporation Austin, TX EPA CONTACT: Plotkin, S. 8–755–0646

600/5–76–002 **PE 1HA094** **CONTRACT NO. 68–01–2634**

Economic Welfare Impacts of Urban Noise BY R. Thorpe, and T. Holmes, QEI, Inc. Bedford, MA

The basic purpose of this project was to develop a conceptual framework for estimating the social welfare gains or benefits of reducing current noise levels in urban environments. The project has concentrated on developing economic welfare theory and empirical techniques to assess willingness-to-pay by individuals for noise avoidance. Particular attention was paid to noise produced by motor vehicles and noise produced by operations at construction sites. The theoretical effect of the localized nature of noise on people's willingness-to-pay to control noise was investigated and found to be important. An efficient pricing scheme for aggregate noise disturbance was devised, based on people's willingness-to-pay for noise reduction. A systematic analysis of the case of many suppliers of the public good of noise reduction was carried out. A questionnaire was developed to elicit response on the physical and psychic costs of noise in urban areas. This questionnaire will attempt to assign dollar values to the costs of noise pollution by determining people's willingness-to-pay to control or reduce noise. EPA CONTACT: Carlin, A.

600/9–76–002 **PE 1RW103** **IN-HOUSE PROJECT**

Publications Bibliography – 1975 Environmental Research Center, EPA Research Triangle Park, NC

Listing of the published articles by the staff of the four laboratories comprising EPA's Environmental Research Center, Research Triangle Park, North Carolina. These are the Health Effects Research Laboratory, the Environmental Sciences Research Laboratory, the Environmental Monitoring and Support Laboratory, and the Industrial Environmental Research Laboratory. The bibliography is inclusive for the period January 1971 – September 1975, although some citations predating EPA's creation (December 1971) are included. The bibliography consists of a Key WordIn-Context Index, an Author Index, and a Publication Citations section. EPA CONTACT: Childs, N. E.

600/9–76–003 **PE 1RW103** **IN-HOUSE PROJECT**

Environmental Research Outlook, FY 1976 through 1980; Report to Congress Office of Research and Development, EPA Washington, DC

This report represents the first attempt by the Office of Research and Development (ORD) to present a five-year overview of ORD's research program, priorities and trends. The report will be updated annually. This overview is broken into ORD's five major programs which are: Health and Ecological Effects; Industrial Processes; Public Service Activities; Monitoring and Technical Support; and Energy/Environment. ORD's working agreements with other Federal Agencies are also briefly described. In the near-term ORD has given priority to strengthening the Health and Ecological Effects Program. Another priority area is the Industrial Processes Program where pollution control technology R&D is needed if the 1985 water quality goals are to be more closely met. Emphasis will also be placed on monitoring and quality assurance R&D which support Agency regulatory actions. EPA CONTACT: Waddell, T.

600/9–76–004 **PE 1BA064** **ROAP/TASK 21 BFP 014** **GRANT NO. 803663**

Gas and Leachate from Landfills: Formation, Collection, and Treatment BY E. J. Genetelli, and J. Cirello, Rutgers University New Brunswick, NJ

A research symposium on sanitary landfills was held to bring together researchers, administrators, and other personnel to exchange state-ofthe-art ideas and findings. This mechanism was utilized so that maximum coverage could be gained. Topic areas discussed were gas and leachate, their formation, collection, and treatment. The compilation of papers contained in this symposium presents the Solid and Hazardous Waste Research Division, Municipal Environmental Research Laboratory, research on sanitary landfills. EPA CONTACT: Landreth, R. 8–684–7876

NEW REPORT ABSTRACTS SECTION

600/9–76–005 **PE 1HA327** **IN-HOUSE PROJECT**

Quality Assurance Handbook for Air Pollution Measurement Systems. Volume I. Principles Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC

This Handbook includes guiding principles and recommended procedures for achieving quality assurance in air pollution measurement systems. Volume I contains brief discussions of elements of quality assurance. Expanded discussions of technical points, including sample calculations, are included in the appendices. The discussion of each element, therefore, is structured to be brief and at the same time, to highlight its most important features. The elements of quality assurance discussed in Volume I include document control, quality assurance policy and objectives, organization, quality planning, training, pretest preparation, preventive maintenance, sample collection, sample analysis data reporting, procurement quality control, calibration, corrective action, quality cost interlaboratory and intralaboratory testing, audit procedures, data validation, statistical analysis of data, configuration control, reliability, quality reports to management, quality assurance manual and quality assurance plans for projects and programs. Organizations developing and implementing their own quality assurance plans will find Volume I useful for general guidance. EPA CONTACT: Akland, G.

600/9–76–006 **PE EHB624** **CONTRACT NO. 68–01–2940**

Meeting Report: Advanced Fossil Fuels Sector Group, Research Triangle Park, 13 November 1975 Stanford Research Institute Arlington, VA

The minutes of the second Advanced Fossil Fuels Sector Group Meeting cover the content of the presentations which were made as well as the discussion which followed. Two general areas of concern were addressed: (1) R&D strategies for control technology and the relationships of control technology R&D to development of standards and in respect to impact on industry and (2) pollutant prioritization and the relationship of characterization and prioritization to control technology, standards and the impact on other government agencies and industry. These areas of concern were considered in the context of current control technology versus that which may be required in the future, in particular as it relates to coal gasification and liquefaction. EPA CONTACT: Foley, G. 8–755–0207

BIBLIOGRAPHIC SECTION

REPORT NO.		
SAB-73-001	1HA410	**Nitrogenous Compounds in the Environment** Office of Research and Development, Science Advisory Board, EPA Washington, DC **ORDER FROM: NTIS-PB** 240 702/AS $7.00 **GPO-** EP1.2:N63 – $2.20
600/1-75-001	1GB090	**Federal Noise Effects Research: FY 73 – FY 75 — Abstracted 600/9-75-001a** --Noise Technology Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 241 751/AS $6.25
600/1-75-002	1CA046	**Formation of Halogenated Organics By Chlorination of Water Supplies — Abstracted 600/9-75-001b** --BY J. C. Morris, Harvard University Cambridge, MA **ORDER FROM: NTIS-PB** 241 511/AS $4.25
600/1-75-003	1CA046	**Virus-In-Water Study of Finished Water from Six Communities — Abstracted 600/9-75-001d** --BY E. W. Akin, D. A. Brashear, E. C. Lippy, and N. A. Clarke, Health Effects Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 246 042/AS $3.75
600/1-75-004	1AA001	**Molybdenum – A Toxicological Appraisal** BY L. Friberg, P. Boston, G. Nordberg, M. Piscator, and K. H. Robert, Karolinska Institute Stockholm, Sweden **ORDER FROM: NTIS-PB** 249 458/AS $6.00
600/1-75-005	1AA001	**Vapor-Phase Organic Pollutants – Volatile Hydrocarbons and Oxidation Products — Abstracted 600/9-75-001d** --National Academy of Sciences Washington, DC **ORDER FROM: NTIS-PB** 249 357/AS $16.25
600/1-76-001	1AA601	**Effects of Low Levels of Ozone and Temperature Stress** BY S. M. Horvath, and L. J. Folinsbee, California, University of Santa Barbara, CA **ORDER FROM:** Pending
600/1-76-002	1EA078	**Role of Mixed Function Oxidases in Insecticide Action** BY R. L. Metcalf, Illinois, University of Urbana, IL **ORDER FROM:** Pending
600/1-76-003	1EA078	**Effect of Duck Hepatitis Virus on Pesticide Toxicity** BY W. L. Ragland, Georgia, University of, Poultry Disease Research Center Athens, GA **ORDER FROM: NTIS-PB** 249 351/AS $4.50
600/1-76-004	1EA078	**Chemistry and Mode of Action of Insecticides** BY T. R. Fukuto, California, University of, Department of Entomology Riverside, CA **ORDER FROM:** Pending
600/1-76-005	1EA078	**In-Vitro Screening Methods Evaluating the Neurotoxic Potential of Pesticides** BY T. Narahashi, Duke University Medical Center Durham, NC **ORDER FROM: NTIS-PB** 249 352/AS $4.00
600/1-76-006	1AA005	**National Environmental Specimen Bank Survey** BY R. I. Van Hook, and E. E. Huber, Oak Ridge National Laboratory Oak Ridge, TN **ORDER FROM: NTIS-PB** 251 180/AS $7.75
600/1-76-007	1FA082	**Bibliography of the Cat: Revised Edition** BY E. Berman, and C. G. Liddle, Health Effects Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 250 939/AS $16.25
600/1-76-008	1EA078	**Mode of Action of Cyclodiene Insecticides** BY L. A. Crowder, Arizona, University of, Department of Entomology Tucson, AZ **ORDER FROM:** Pending
600/1-76-009	1AA601	**Effects of Oxidant and Sulfate Interaction on Production of Lung Lesions** BY G. Freeman, and L. T. Juhos, Stanford Research Institute Menlo Park, CA **ORDER FROM:** Pending
600/1-76-010a	1AA601	**Assessment of Toxicity of Automotive Metallic Emissions. Volume I: Assessment of Fuel Additives Emission Toxicity via Selected Assays of Nucleic Acid and Protein Synthesis** BY D. J. Holbrook Jr., North Carolina, University of Chapel Hill, NC **ORDER FROM:** Pending
600/1-76-010b	1AA601	**Assessment of Toxicity of Automotive Metallic Emissions. Volume II: Relative Toxicities of Automotive Metallic Emissions Against Lead Compounds Using Biochemical Parameters** BY D. J. Holbrook Jr., North Carolina, University of Chapel Hill, NC **ORDER FROM:** Pending
600/1-76-011	1AA601	**Community Health Environmental Surveillance Studies (CHESS) Air Pollution Monitoring Handbook: Manual Methods** Health Effects Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 251 157/AS $6.00

BIBLIOGRAPHIC SECTION

REPORT NO.

600/1-76-012 1EA488 **Optimization and Evaluation of a Microelectrolytic Conductivity Detector for the Gas Chromatographic Determination of Pesticide Residues** BY R. C. Hall, Purdue University West Lafayette, IN **ORDER FROM: NTIS-PB** 250 451/AS $6.75

600/1-76-013 1CC614 **Methyl Mercury and the Metabolic Responses of Brain Tissue** BY R. J. Bull, Health Effects Research Laboratory, EPA Cincinnati, OH **ORDER FROM:** Pending

600/1-76-014 1AA601 **Selenium** National Academy of Sciences Washington, DC **ORDER FROM:** Pending

600/1-76-015 1AA601 **Realistic Models for Mortality Rates and Their Estimation** BY V. K. Murthy, California, University of Los Angeles, CA **ORDER FROM: NTIS-PB** 250 638/AS $5.50

600/1-76-016 1AA601 **Comparative Methylation Chemistry of Platinum, Palladium, Lead, and Manganese** BY R. T. Taylor, California, University of, Lawrence Livermore Laboratory Livermore, CA **ORDER FROM:** Pending

600/1-76-017 1EA615 **Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples** BY J. Sherma, Lafayette College Easton, PA **ORDER FROM:** Pending

600/1-76-018 1AA601 **Toxicology of Metals – Volume I** BY L. Friberg, Subcommittee on the Toxicology of Metals Research Triangle Park, NC **ORDER FROM:** Pending

600/1-76-019 1AA601 **Baseline Levels of Platinum and Palladium in Human Tissue** BY D. E. Johnson, R. J. Prevost, J. B. Tillery, D. E. Camann, and J. M. Hosenfield, Southwest Research Institute San Antonio, TX **ORDER FROM:** Pending

600/1-76-020 1AA601 **Chlorine and Hydrogen Chloride** National Academy of Sciences Washington, DC **ORDER FROM:** Pending

600/1-76-021 1AA601 **Trace Substances and Tobacco Smoke in Interaction with Nitrogen Oxides: Biological Effects** BY G. Freeman, and L. T. Juhos, Stanford Research Institute Menlo Park, CA **ORDER FROM:** Pending

600/2-73-001 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

600/2-73-002 1BB034 **Portable Device for Measuring Wastewater Flow in Sewers** BY M. A. Nawrocki, Hittman Associates, Inc. Columbia, MD **ORDER FROM: NTIS-PB** 233 142 $4.75

600/2-73-003 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

600/2-73-004 1BB033 **Planned Maintenance Management System for Municipal Wastewater Treatment Plants** BY D. H. Sargent, and D. A. Ruich, Enviro Plan, Inc. College Park, MD **ORDER FROM: GPO-**EP1.23/2:600/2-73-004 $1.55 **NTIS-PB** 233 111

600/2-74-001 1AB013 **Assessment of the Potential of Clean Fuels and Energy Technology** BY E. Hall, P. Choi, and E. Krope, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: GPO-**EP1.23/2:600/2-74-001 $2.60 **NTIS-PB** 239 970/AS $7.00

600/2-74-002 1AB013 **Control of Environmental Impacts From Advanced Energy Sources** BY E. E. Hughes Jr., E. M. Dickson, and R. A. Schmidt, Stanford Research Institute Menlo Park, CA **ORDER FROM: GPO-**EP1.23/2:600/2-74-002 $4.00 **NTIS-PB** 239 450/AS $6.50

600/2-74-003 1BB045 **Development of Phosphate – Free Heavy Duty Detergents** BY A. M. Schwartz, and A. E. Davis, Gillette Research Institute Rockville, MD **ORDER FROM: GPO-**EP1.23/2:600/2-74-003 $2.65 **NTIS-PB** 232 943

600/2-74-004 1AB015 **Selected Characteristics of Hazardous Pollutant Emissions** BY L. J. Duncan, E. L. Keitz, and E. P. Krajeski, Mitre Corporation Washington, DC **ORDER FROM:** Pending

600/2-74-005 1BB033 **Development of a Monthly Technology Bulletin** BY D. A. Sandoski, Franklin Institute Research Laboratories Philiadelphia, PA **ORDER FROM: GPO-**EP1.23/2:600/2-74-005 $1.65 **NTIS-PB** 238 471/AS

600/2-74-006 1BB036 **Study of Feasibility of Herbicide Orange Chlorinolysis** BY E. A. Lavergne, Diamond Shamrock Corporation, T. R. Evans Research Center Painesville, OH **ORDER FROM:** Paul Des Rosiers 202 426-4170

600/2-74-007 1BB036 **Development of a Monthly Industrial Technology Bulletin** BY J. S. Murphy, and D. A. Sandoski, Franklin Institute Research Laboratories Philadelphia, PA **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-74-008	1AB015	**Proceedings, Symposium Control of Fine-Particulate Emissions from Industrial Sources, January 15-18, 1974 San Francisco, CA** Air Pollution Control Division, ORD, EPA Washington, DC **ORDER FROM: NTIS-PB** 235 829 $13.00
600/2-74-009a	1BB036	**State-of-The-Art For The Inorganic Chemicals Industry: Inorganic Pesticides — Abstracted 600/9-75-001a** --BY J. Patterson, Illinois Institute of Technology Chicago, IL **ORDER FROM: NTIS-PB** 240 959/AS $4.25
600/2-74-009b	1BB036	**State-of-The-Art For The Inorganic Chemicals Industry: Commercial Explosives — Abstracted 600/9-75-001a** --BY J. Patterson, Illinois Institute of Technology Chicago, IL **ORDER FROM: NTIS-PB** 240 960 $4.75
600/2-74-009c	1BB036	**State-of-The-Art For The Inorganic Chemicals Industry: Industrial Inorganic Gases — Abstracted 600/9-75-001a** --BY J. Patterson, Illinois Institute of Technology Chicago, IL **ORDER FROM: NTIS-PB** 240 961/AS $4.25
600/2-75-001	1BB036	**Projects in the Industrial Pollution Control Division - December 1974 — Abstracted 600/9-75-001a —** Industrial Pollution Control Division, EPA Washington, DC **ORDER FROM: NTIS-PB** 243 892/AS $11.25
600/2-75-002	1GB090	**Federal Surface Vehicle Noise Research, Development, and Demonstration Program: FY 73 - FY 75 — Abstracted 600/9-75-001a** --Noise Technology Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 241 887/AS $4.75
600/2-75-003	1GB090	**Federal Aircraft Noise Research, Development, and Demonstration Programs: FY 73 - FY 75 — Abstracted 600/9-75-001b** --Noise Technology Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 241 904/AS $7.25
600/2-75-004	1BB034	**Contributions of Urban Roadway Usage to Water Pollution — Abstracted 600/9-75-001b** --BY D. G. Shaheen, Biospherics, Inc. Rockville, MD **ORDER FROM: NTIS-PB** 245 854/AS $10.00
600/2-75-005	1BB033	**Municipal Water Pollution Control Abstracts for 1974 — Abstracted 600/9-75-001b** --BY J. S. Murphy, Franklin Institute Research Laboratories Philadelphia, PA **ORDER FROM: NTIS-PB** 242 834/AS $25.25
600/2-75-006	1AB013	**Detailed Cost Estimates For Advanced Effluent Desulfurization Processes — Abstracted 600/9-75-001b —** BY G. G. McGlamery, R. L. Torstrick, W. J. Broadfoot, J. P. Simpson, L. J. Henson, S. V. Tomlinson, and J. F. Young, Tennessee Valley Authority Muscle Shoals, TN **ORDER FROM: NTIS-PB** 242 541/AS $11.25
600/2-75-007	1BB042	**Impact of Hydrologic Modifications on Water Quality — Abstracted 600/9-75-001d** --BY J. Bhutani, R. Holberger, W. E. Jacobsen, P. Spewak, and D. B. Truett, Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 248 523/AS $13.00
600/2-75-008	1GB090	**Federal Machinery Noise Research, Development and Demonstration: FY 73-75** Noise Technology Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 243 523/AS $5.25
600/2-75-009	1AB014	**Oil Shale Air Pollution Control — Abstracted 600/9-75-001b** --BY E. E. Hughes, P. A. Budee, C. V. Fojo, R. G. Murray, and R. K. White, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 242 858/AS $5.25
600/2-75-010	1GB090	**Assessment of the Federal Noise Research, Development, and Demonstration Activities: FY 73 - FY 75 — Abstracted 600/9-75-001d** --BY E. E. Berkau, S. R. Cordle, F. D. Hart, and G. R. Simon, Noise Technology Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 246 894/AS $6.00
600/2-75-011	1AB012	**Study of SO_x Control For Selected Industrial Boilers** BY J. Bhutani, C. B. Foster, E. M. Jamgochian, and E. P. Krajeski, Mitre Corporation McLean, VA **ORDER FROM:** Pending
600/2-75-012	1AB013	**Continuous Measurement of Gas Composition From Stationary Sources — Abstracted 600/9-75-001d** --BY E. Brooks, D. Luciani, C. Flegal, L. Harnett, M. Kolpin, and R. Williams, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 245 024/AS $5.75
600/2-75-013a	1AB012	**Fractional Efficiency of a Utility Boiler Baghouse - Nuclea Generating Plant** BY R. Bradway, and R. Cass, GCA Corporation Bedford, MA **ORDER FROM:** Pending
600/2-75-014	1AB015	**Sinter Plant Windbox Gas Recirculating System Demonstration** BY D. Pengidore, National Steel Corporation Weirton, WV **ORDER FROM: NTIS-PB** 249 564/AS $6.00
600/2-75-015	1AB012	**Conditioning of Fly Ash With Sulfur Tri-Oxide and Ammonia** BY E. B. Dismukes, Southern Research Institute Birmingham, AL **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.	
600/2-75-016	1AB015 **Incinerator Overfire Mixing Demonstration — Abstracted 600/9-75-001d** —BY T. J. Lamb, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 245 015/AS $6.25
600/2-75-017	1AB012 **Effect of Chemical Composition on the Surface Resistivity of Fly Ash — Abstracted 600/9-75-001d** —BY R. E. Bickelhaupt, Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 244 885/AS $4.25
600/2-75-018	1AB012 **Study of Flux Force – Condensation Scrubbing of Fine Particules** BY S. Calvert, N. Jhaveri, and T. Huisking, A.P.T., Inc. San Diego, CA **ORDER FROM: NTIS-PB** 249 297/AS $7.50
600/2-75-019	1AB014 **Estimating Kinetics of Combustion Especially Reactions Involving NOx and SOx** BY S. W. Benson, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 245 054/AS $5.25
600/2-75-020	1AB020 **Particulate Removal From Gas Streams at High Temperature – High Pressure** BY A. K. Rao, M. P. Schrag, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 245 858/AS $4.75
600/2-75-021a	1AB012 **Evaluation of Systems for Control of Emissions from Rocket Motors – Phase I** BY S. Stalberg, A.P.T., Inc. San Diego, CA **ORDER FROM: NTIS-PB** 245 590/AS $4.25
600/2-75-022	1AB013 **Effects of Transient Operating Conditions on Steam – Electric Generator Emissions** BY J. S. McKnight, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 247 701/AS $5.50
600/2-75-023	1AB013 **Absorption of Sulfur Dioxide In Spray Column and Turbulant Contacting Absorbers** BY C. Y. Wen, and L. S. Fan, West Virginia University Morgantown, WV **ORDER FROM: NTIS-PB** 247 334/AS $5.50
600/2-75-024	1AA010 **Versatile Gas Filter Corrolation Spectrometer** BY D. E. Burch, D. A. Gryvnak, and J. D. Pembrook, Aeroneutronics Ford Corporation Newport Beach, CA **ORDER FROM:** Pending
600/2-75-025	1AA010 **Particle Detector By Mechanical Impact Sensing** BY M. Benarie, and J. Quetier, Institut National de Recherche Chimique Appliquee Vertle Petit, FR **ORDER FROM: NTIS-PB** 247 212/AS $5.00
600/2-75-026a	1BB039 **Control of Water Pollution From Cropland, Vol. I – A Manual for Guideline Development** U.S. Department of Agriculture Washington, DC **ORDER FROM: NTIS-PB** 249 517/AS $5.50
600/2-75-027	1BB034 **Sewer Flow Measurement – A State-of-the Art Assessment — Abstracted 600/9-75-001d** —BY P. E. Shelley, and G. A. Kirkpatrick, EG&G, Inc. Rockville, MD **ORDER FROM:** Pending
600/2-75-028	1BB036 **Electrolytic Treatment of Job Shop Metal Finishing Wastewater — Abstracted 600/9-75-001d** —BY B. E. Warner, New England Plating Company, Inc. Worcester, MA **ORDER FROM: NTIS-PB** 246 560/AS $6.75
600/2-75-029	1BB043 **Measurements of Active Biomass Concentrations in Biological Waste Treatment Processes — Abstracted 600/9-75-001c** —BY F. G. Pohland, and S. J. Kany, Georgia Institute of Technology Atlanta, GA **ORDER FROM: NTIS-PB** 246 135/AS $6.25
600/2-75-030	1BB043 **Hatfield Township, Pennsylvania, Advanced Waste Treatment Plant — Abstracted 600/9-75-001c** —BY T. W. Greenlund, and F. R. Gaines, Hatfield Township Municipal Authority Colmar, PA **ORDER FROM: NTIS-PB** 245 622/AS $7.50
600/2-75-031	1BB043 **Actinomycetes of Sewage-Treatment Plants — Abstracted 600/9-75-001c** —BY H. A. Lechevalier, Rutgers University New Brunswick, NJ **ORDER FROM: NTIS-PB** 245 914/AS $4.25
600/2-75-032	1BB043 **Bioflocculation and the Accumulation of Chemicals By Floc-Forming Organisms — Abstracted 600/9-75-001c** —BY P. R. Dugan, Ohio State University Columbus, OH **ORDER FROM: NTIS-PB** 245 793/AS $6.25
600/2-75-033	1BB034 **Treatment of Combined Sewer Overflows by Dissolved Air Flotation — Abstracted 600/9-75-001d** —BY T. Bursztynsky, D. Feuerstein, W. Maddaus, and C. Huang, Engineering Science, Inc. Berkeley, CA **ORDER FROM: NTIS-PB** 248 186/AS $8.00
600/2-75-034	1BB043 **Trench Incorporation of Sewage Sludge in Marginal Agricultural Land — Abstracted 600/9-75-001d** —BY J. M. Walker, W. D. Burge, R. L. Chaney, E. Epstein, and J. D. Menzies, U.S. Department of Agriculture Beltsville, MD **ORDER FROM: NTIS-PB** 246 561/AS $9.00
600/2-75-035	1BB043 **Aerobic-Stabilization of Waste Activated Sludge – An Experimental Investigation — Abstracted 600/9-75-001d** —BY D. B. Cohen, and D. G. Fullerton, Metropolitan Denver Sewage Disposal District No. 1 Commerce City, CO FMC Corporation Englewood, CO **ORDER FROM: NTIS-PB** 246 593/AS $7.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-75-036	1BC611	**Alternative Septage Treatment Method: Lime Stabilization/ Sand-Bed Dewatering — Abstracted 600/9-75-001c** --BY W. A. Feige, E. T. Oppelt, and J. F. Kreissl, Municipal Environmental Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 245 816/AS $4.25
600/2-75-037	1AB013	**Test Evaluation of Cat-Ox High Efficiency Electrostatic Precipitator — Abstracted 600/9-75-001c** --BY E. M. Jamgochian, N. T. Miller, and R. Reale, Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 246 647/AS $5.50
600/2-75-038	1BB043	**Lime Use in Wastewater Treatment: Design and Cost Data — Abstracted 600/9-75-001d** --BY E. De La Fuente, L. O. Britt, M. L. Spealman, R. J. Stenquist, and F. J. Zadick, Brown and Caldwell, Construction Engineers Walnut Creek, CA **ORDER FROM: NTIS-PB** 248 181/AS $9.75
600/2-75-039	1BC611	**Improved Liquid-Solids Separation By An Aluminum Compound in Activated Sludge Treatment — Abstracted 600/9-75-001d** --BY C. F. Lenhart, and J. W. Cagle, Greene County Sanitary Engineering Department Xenia, OH **ORDER FROM: NTIS-PB** 248 228/AS $4.50
600/2-75-040	1DB063	**Evaluation of Hazardous Wastes Emplacement in Mined Openings** BY R. B. Stone, P. L. Aamodt, P. Madden, and M. R. Engler, Fenix and Scisson, Inc. Tulsa, OK **ORDER FROM: NTIS-PB** 250 701/AS $13.50
600/2-75-041	1DB311	**Determination of Incinerator Operating Conditions Necessary for Safe Disposal of Pesticides** BY T. L. Ferguson, F. J. Bergman, G. R. Cooper, R. T. Li, and F. L. Honea, Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending
600/2-75-042	B458	**Control of Hydrocarbon Emissions From Petroleum Liquids — Abstracted 600/9-75-001c** --BY C. E. Burnklin, E. C. Cavanough, J. C. Dickerman, S. R. Fernandes, and G. C. Wilkins, Radian Corporation Austin, TX **ORDER FROM: NTIS-PB** 246 650/AS $8.00
600/2-75-043	1DB064	**Sanitary Landfill Stabilization with Leachate Recycle and Residual Treatment — Abstracted 600/9-75-001d** --BY F. G. Pohland, Georgia Institute of Technology Atlanta, GA **ORDER FROM: NTIS-PB** 248 524/AS $5.50
600/2-75-044	1DB311	**Summation of Conditions and Investigations for the Complete Combustion of Organic Pesticides — Abstracted 600/9-75-001d** --BY B. T. Riley Jr., Independent Management Consultant on Environmental Affairs Cincinnati, OH **ORDER FROM: NTIS-PB** 248 177/AS $5.00
600/2-75-045	1AB013	**Method for Evaluating SO_2 Abatement Strategies — Abstracted 600/9-75-001d** --BY C. T. Chi, E. C. Eimutis, W. H. Hedley, M. V. Jones, R. Jones, and L. B. Mote, Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 246 669/AS $5.00
600/2-75-046	1AB014	**NO_x Combustion Control Methods and Costs for Stationary Sources—Summary Study — Abstracted 600/9-75-001d** --BY A. B. Shimizu, R. J. Schreiber, H. B. Mason, G. G. Poe, and S. B. Youngblood, Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 246 750/AS $5.50
600/2-75-047	1BB043	**Demineralization of Wastewater by Electrodialysis — Abstracted 600/9-75-001d** --BY H. H. Takenaka, C. L. Chen, and R. P. Miele, Los Angeles County Sanitation District Whittier, CA **ORDER FROM: NTIS-PB** 249 102/AS $4.00
600/2-75-048	1AA002	**Protocol to Characterize Gaseous Emissions as a Function of Fuel and Additive Composition — Abstracted 600/9-75-001d** --BY H. M. Dietzmann, Southwest Research Institute San Antonio, TX **ORDER FROM:** Pending
600/2-75-049	1BC611	**Raw Sewage Coagulation and Aerobic Sludge Digestion — Abstracted 600/9-75-001d** --BY R. H. Jones, T. A. Burnsztynsky, and J. D. Crane, Holywood, City of Holywood, FL **ORDER FROM: NTIS-PB** 249 107/AS $6.00
600/2-75-050	1AB013	**EPA Alkali Scrubbing Test Facility: Advanced Program (First Progress Report) — Abstracted 600/9-75-001d** --BY M. Epstein, Bechtel Corporation San Francisco, CA **ORDER FROM: NTIS-PB** 245 279/AS $6.25
600/2-75-051	1AB013	**Conceptual Design of a Commercial Scale Plant for Chemical Desulfurization of Coal — Abstracted 600/9-75-001d** --BY W. F. Nekervis, and E. F. Hensley, Dow Chemical Company Midland, MI **ORDER FROM: NTIS-PB** 248 199/AS $16.25
600/2-75-052	1AA010	**Collection Efficiency Study of the Proposed Method 13 Sampling Train — Abstracted 600/9-75-001d** --BY W. Smith, Entropy Environmentalists, Inc. Research Triangle Park, NC **ORDER FROM: NTIS-PB** 248 103/AS $4.00

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-75-053	1AA010	**Determination of the Magnitude of SO_2, NO, CO_2, and O_2 Stratification in the Ducting of Fossil Fuel Fired Power Plants — Abstracted 600/9-75-001d** --BY A. R. Crawford, M. W. Gregord, E. H. Manny, and W. Bartok, Exxon Research and Engineering Company Linden, NJ **ORDER FROM:** Pending
600/2-75-054	1AB012	**Overview of EPA/IERL-RTP Scrubber Programs — Abstracted 600/9-75-001d** --BY D. W. Cooper, L. W. Parker, and E. Mallove, GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 246 390/AS $5.50
600/2-75-055	1BB036	**Treatment of Textile Wastewater by Activated Sludge and Alum Coagulation — Abstracted 600/9-75-001d** --BY T. L. Rinker, Lehigh Valley Industries, Inc. Bangor, PA **ORDER FROM: NTIS-PB** 248 142/AS $7.75
600/2-75-056	1AB012	**Particulate Collection Efficiency Measurements on Three Electrostatic Precipitators — Abstracted 600/9-75-001d** --BY C. B. Nichols, and J. D. McCain, M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 248 220/AS $5.00
600/2-75-057	1AB013	**Magnesia Scrubbing Process as Applied to an Oil-Fired Power Plant — Abstracted 600/9-75-001d** --BY G. Koehler, and J. A. Burns, Chemical Construction Corporation New York, NY **ORDER FROM: NTIS-PB** 247 201/AS $9.00
600/2-75-058	1BB043	**Semi-Automatic Control of Activated Sludge Plants – State of the Technology** BY C. A. Nagel, Los Angeles County Sanitation District Whittier, CA **ORDER FROM: NTIS-PB** 249 067/AS $7.75
600/2-75-059	1AB012	**Proceedings: Symposium on Fine Particles – Minneapolis, Minnesota, May 1975 — Abstracted 600/9-75-001d** --BY B. J. H. Liu, Minnesota, University of Minneapolis, MN **ORDER FROM: NTIS-PB** 249 514/AS $21.25
600/2-75-060	1BC611	**Ultraviolet Disinfection of Activated Sludge Effluent Discharging to Shellfish Waters** BY J. A. Roeber, and F. M. Hoot, St. Michaels, Town of St. Michaels, MD **ORDER FROM: NTIS-PB** 249 460/AS $5.00
600/2-75-061	1BC611	**Laboratory Evaluation of a Method for Enhancing the Kinetics of Activated Sludge Treatment Plants — Abstracted 600/9-75-001d** --BY S. J. Sedita, Houston Research, Inc. Houston, TX **ORDER FROM: NTIS-PB** 245 683/AS $4.75
600/2-75-062	1BB034	**Helical Bend Combined Sewer Overflow Regulator** BY R. B. Boericke, M. M. Cohn, G. Galina, C. Koch, F. E. Parkinson, T. M. Prus-Chacinski, R. H. Sullivan, and J. E. Ure, American Public Works Association Chicago, IL **ORDER FROM: NTIS-PB** 250 619/AS $6.00
600/2-75-063	1AB013	**Catalytic Desulfurization and Denitrogenation — Abstracted 600/9-75-001d** --BY C. N. Satterfield, M. Modell, J. F. Mayer, and J. F. Cocchetto, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 248 101/AS $4.50
600/2-75-064	1HB617	**Scientific Irrigation Scheduling for Salinity Control of Irrigation Return Flows — Abstracted 600/9-75-001d** --BY M. E. Jensen, U.S. Department of Agriculture Kimberly, ID **ORDER FROM: NTIS-PB** 249 114/AS $5.00
600/2-75-065	1BB043	**Assessment of Automatic Sewer Flow Samplers – 1975** BY P. E. Shelley, and G. A. Kirkpatrick, EG&G Washington Analytical Services Center, Inc. Rockville, MD **ORDER FROM:** Pending
600/2-75-066	1AB013	**Molecular Sieve Control Process in Sulfuric Acid Plants — Abstracted 600/9-75-001d** --BY D. W. Hissong, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 249 563/AS $5.00
600/2-75-067	1AB013	**Evaluation of National Boiler Inventory — Abstracted 600/9-75-001d** --BY A. A. Putnam, E. L. Kropp, and R. E. Barrett, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 248 100/AS $4.50
600/2-75-068	1AB013	**Environmental Problem Definition for Petroleum Refineries, Synthetic Natural Gas Plants, and Liquefied Natural Gas Plants — Abstracted 600/9-75-001d** --BY E. C. Cavanaugh, J. D. Colley, P. S. Dzierlenga, V. M. Felix, D. C. Jones, and T. P. Nelson, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-75-069a	1AB014	**Guidelines for Residential Oil-Burner Adjustments — Abstracted 600/9-75-001d** --BY D. W. Locklin, and R. E. Barrett, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 248 292/AS $4.00
600/2-75-070	EHB447	**EPA Program Status Report – Synthetic Fuels Program — Abstracted 600/9-75-001d** --BY B. Truett, R. G. Murray, and G. Foley, Stanford Research Institute Menlo Park, CA Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 247 140/AS $4.00

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-75-071	1BB034	**Detention Tank for Combined Sewer Overflow – Milwaukee, Wisconsin, Demonstration Project** Milwaukee, City of, Department of Public Works Milwaukee, WI Consoer, Townsend, and Associates Milwaukee, WI **ORDER FROM: NTIS-PB** 250 427/AS $9.75
600/2-75-072	1BB035	**Economical Residential Pressure Sewer System with No Effluent** BY G. F. Hendricks, and S. M. Rees, SIECO, Inc. Columbus, IN Grandview Lot Owners Association Columbus, IN **ORDER FROM: NTIS-PB** 249 195/AS $5.00
600/2-75-073	1AB013	**SO_2 Reduction in Non-utility Combustion Sources – Technical and Economic Comparison of Alternatives — Abstracted 600/9-75-001d** --BY P. S. K. Choi, E. L. Kropp, W. E. Ballantyne, M. Y. Anastas, A. A. Putnam, D. W. Hissong, and T. J. Thomas, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 248 051/AS $9.75
600/2-75-074	1AB012	**Evaluation of a Particulate Scrubber on a Coal-Fired Utility Boiler — Abstracted 600/9-75-001d** --BY D. S. Ensor, B. S. Jackson, S. Calvert, C. Lake, D. V. Wallon, R. E. Nilan, K. S. Campbell, T. A. Cahill, and R. G. Flocchini, Meteorology Research, Inc. Altadena, CA **ORDER FROM: NTIS-PB** 249 562/AS $7.75
600/2-75-075	1AB014	**Effect of Fuel Sulfur on NO_x Emissions from Premixed Flames — Abstracted 600/9-75-001d** --BY J. O. L. Wendt, and J. M. Ekmann, Arizona, University of Tucson, AZ **ORDER FROM: NTIS-PB** 248 099/AS $5.00
600/2-75-076	1AA010	**Development of Analytical Techniques for Measuring Ambient Atmospheric Carcinogenic Vapors — Abstracted 600/9-75-001d** --BY E. D. Pellizzari, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 250 620/AS $7.50
600/2-75-077	1AA010	**Evaluation of the Correlation Spectrometer as an Area SO_2 Monitor — Abstracted 600/9-75-001d** --BY R. B. Sperling, Environmental Measurements, Inc. San Francisco, CA **ORDER FROM: NTIS-PB** 249 113/AS $5.50
600/2-75-078	1AB013	**Fuel Gas Environmental Impact: Phase Report — Abstracted 600/9-75-001d** --BY F. L. Robson, A. J. Giramonti, W. A. Blecher, and G. Mazzella, United Technologies Research Center Hartford, CT **ORDER FROM: NTIS-PB** 249 454/AS $9.75
600/2-76-001	1AB012	**Evaluation of Sonics for Fine Particle Control** BY R. Hegarty, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 249 315/AS $4.50
600/2-76-002	1AB015	**Control of Reclamation (Sinter) Plant Emissions Using Electrostatic Precipitators** BY J. Varga Jr., Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 249 505/AS $5.00
600/2-76-003	1AB014	**Survey and Evaluation of Kinetic Data on Reactions in Methane/Air Combustion** BY V. S. Engleman, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 248 139/AS $12.50
600/2-76-004	1AB013	**Iron Foundry Cupola Recuperative Emission Control Demonstration** BY J. F. Turner III, Flynn and Emrich Company Baltimore, MD **ORDER FROM: NTIS-PB** 250 481/AS $4.50
600/2-76-005a	1BB045	**Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia – Volume I** BY J. A. Westphal, J. V. A. Sharp, and R. L. Bateman, Nevada, University of, Center for Water Resources Research Reno, NV **ORDER FROM: NTIS-PB** 247 798/AS $4.50
600/2-76-005b	1BB045	**Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia: Volume II – Appendices** BY J. A. Westphal, J. V. A. Sharp, and R. L. Bateman, Nevada, University of, Center for Water Resources Research Reno, NV **ORDER FROM: NTIS-PB** 247 799/AS $9.25
600/2-76-006	1BB034	**Design and Testing of a Prototype Automatic Sewer Sampling System** BY P. E. Shelley, EG&G Washington Analytical Services Center, Inc. Rockville, MD **ORDER FROM:** Pending
600/2-76-007	1AB013	**Mixed Oxides for Fuel Cell Electrodes** BY U. Bertocci, M. Cohen, W. S. Horton, T. Negas, and A. R. Siedle, National Bureau of Standards Washington, DC **ORDER FROM: NTIS-PB** 248 744/AS $4.50
600/2-76-008	1AB013	**SO_2 Control Processes for Non-Ferrous Smelters** BY J. C. Mathews, F. L. Bellegia, C. H. Gooding, and G. E. Weant, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
600/2-76-009	1AB015	**Odor Control by Scrubbing in the Rendering Industry** BY R. H. Snow, and J. E. Huff, IIT Research Institute Des Plaines, IL BY W. Boehme, Fats and Proteins Research Foundation, Inc. Des Plaines, IL **ORDER FROM: NTIS-PB** 251 187/AS $7.75
600/2-76-010	1AB013	**Sulfuric Acid Plant Emissions During Start-up, Shutdown, and Malfunction** BY E. L. Calvin, and F. D. Kodras, Catalytic, Inc. Charlotte, NC **ORDER FROM: NTIS-PB** 249 508/AS $10.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-76-011	1AB015	**Thor V Solventless Metal Decorating for Three-Piece Cans— Background** BY J. W. Capron, and R. C. Heininger, Continental Can Corporation Chicago, IL **ORDER FROM: NTIS-PB** 249 484/AS $3.50
600/2-76-012a	1AB015	**Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume I** BY K. J. Bombaugh, E. C. Cavanaugh, J. C. Dickerman, S. L. Keil, T. P. Nelson, M. L. Owen, and D. D. Rosebrook, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-012b	1AB015	**Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume II. Process Analysis of Petroleum Refinery Streams** BY K. J. Bombaugh, E. C. Cavanaugh, J. C. Dickerman, S. L. Keil, T. P. Nelson, M. L. Owen, and D. D. Rosebrook, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-013a	1AB013	**SO_2 Abatement for Stationary Sources in Japan** BY J. Ando, Chuo University Tokyo, Japan BY G. A. Isaacs, PEDCO-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 250 585/AS $7.50
600/2-76-013b	1AB014	**NO_x Abatement for Stationary Sources in Japan** BY J. Ando, and H. Tohata, Chuo University Tokyo, Japan, FC BY G. A. Isaacs, PEDCO-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 250 586/AS $5.50
600/2-76-014	1AB014	**Molecular Sieve Mercury Control Process in Chlor-Alkali Plants** BY M. Y. Anastas, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending
600/2-76-015	1AB014	**Molecular Sieve NO_x Control Process in Nitric Acid Plants** BY H. S. Rosenberg, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 250 555/AS $5.00
600/2-76-016a	1AB604	**Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part I** BY E. P. Bergmann, and I. B. Fieldhouse, IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 248 116/AS $4.00
600/2-76-016b	1AB604	**Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part II** BY E. P. Bergmann, and I. B. Fieldhouse, IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 248 293/AS $12.50
600/2-76-017	1BB036	**Renovation of Industrial Inorganic Wastewater by Evaporation with Interface Enhancement** BY H. H. Sephton, California, University of, Sea Water Conversion Laboratory Richmond, CA **ORDER FROM:** Pending
600/2-76-018	1BB033	**Interim Report on the Impact of Public Law 92-500 on Municipal Pollution Control Technology** BY B. W. Lykins Jr., and J. M. Smith, Municipal Environmental Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 248 212/AS $9.75
600/2-76-019	1BB039	**Selected Irrigation Return Flow Quality Abstracts, 1974** BY G. V. Skogerboe, W. R. Walker, and S. W. Smith, Colorado State University Fort Collins, CO **ORDER FROM:** Pending
600/2-76-020	1AB012	**High-Velocity, High-Efficiency Aerosol Filtration** BY D. Leith, S. N. Rudnick, and M. W. First, Harvard School of Public Health Boston, MA **ORDER FROM: NTIS-PB** 249 457/AS $7.50
600/2-76-021	1AA010	**Electrochemical Analysis of Sulfidic and Amine Odorants** BY J. N. Nwankwo, and A. Turk, New York, City College of New York, NY **ORDER FROM:** Pending
600/2-76-022	1BB043	**Apollo County Park Wastewater Reclamation Project – Antelope Valley, California** BY H. T. Brandt, and R. E. Kuhns, Los Angeles, County of Los Angeles, CA **ORDER FROM:** Pending
600/2-76-023	1AB012	**Tentative Procedures for Particle Sizing in Process Streams— Cascade Impactors** BY D. B. Harris, Industrial Environmental Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 250 375/AS $4.50
600/2-76-024	1BB392	**Reuse of Power Plant Desulfurization Waste Water** BY L. J. Bornstein, R. B. Fling, F. D. Hess, R. C. Rossi, and J. Rossoff, Aerospace Corporation El Segundo, CA **ORDER FROM: NTIS-PB** 250 732/AS $6.00
600/2-76-025	1BC611	**Cross-flow Filtration in Physical-Chemical Treatment of Municipal Sewage Effluents** BY H. A. Mahlman, W. G. Sisson, K. A. Kraus, and J. S. Johnson Jr., Oak Ridge National Laboratory Oak Ridge, TN **ORDER FROM:** Pending
600/2-76-026	1AA002	**Effect of Gasoline Additives on Gaseous Emissions, Part II** BY R. W. Hurn, F. Cox, and J. R. Allsap, Energy Research and Development Administration Bartlesville, OK **ORDER FROM:** Pending
600/2-76-027	1BB610	**Detection of Oil in Sewers** BY D. H. Bock, and E. H. Eckert, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 249 359/AS $4.00
600/2-76-028	1BB610	**Inverted Siphons for Oil Trapping** BY R. C. Ziegler, R. E. Baier, and D. J. Schuring, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 249 360/AS $4.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-76-029	1BB610	**Program for Preventing and Eliminating Oil Pollution of the Buffalo River** BY R. C. Ziegler, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 249 518/AS $6.00
600/2-76-030	1BB610	**Evaluation of a Pneumatic Barrier for Oil Containment** BY J. M. Grace, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 249 361/AS $5.00
600/2-76-031	1BB610	**Sampling and Identification of Pollutant Oils in Industrial Watercourses** BY R. E. Baier, E. A. Gasiecki, R. P. Leonard, and E. J. Mack, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 249 362/AS $9.00
600/2-76-032a	1AB015	**Source Assessment: Priorization of Stationary Air Pollution Sources—Model Description** BY E. C. Eimutis, Monsanto Research Corporation Dayton, OH **ORDER FROM:** Pending
600/2-76-032b	1AB015	**Source Assessment: Flat Glass Manufacturing Plants** BY R. B. Reznik, Monsanto Research Corporation Dayton, OH **ORDER FROM:** Pending
600/2-76-032c	1AB015	**Source Assessment: Fertilizer Mixing Plants** BY G. D. Rawlings, and R. B. Reznik, Monsanto Research Corporation Dayton, OH **ORDER FROM:** Pending
600/2-76-033	1AA010	**X-Ray Fluorescence Multispectrometer for Rapid Elemental Analysis of Particulate Pollutants** BY J. Wagman, R. L. Bennett, and K. T. Knapp, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/2-76-034	1AA010	**Development Strategy for Pollutant Dosimetry** BY J. W. Harrison, P. A. Lawless, D. E. Gilbert, and J. H. White, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
600/2-76-035	1AB012	**Evaluation of Eight Novel Fine Particle Collection Devices** BY D. W. Cooper, R. Wang, and D. P. Anderson, GCA Corporation Bedford, MA **ORDER FROM:** Pending
600/2-76-036a	1AB013	**Design and Operating Parameters for Emission Control Studies: White Pine Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036b	1AB013	**Design and Operating Parameters for Emission Control Studies: Kennecott, Hayden, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036c	1AB013	**Design and Operating Parameters for Emission Control Studies: Kennecott, McGill, Copper Smelter** BY I. J. Weisenberg, and J.C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036d	1AB013	**Design and Operating Parameters for Emission Control Studies: Kennecott, Hurley, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036e	1AB013	**Design and Operating Parameters for Emission Control Studies: Magma, San Manuel, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036f	1AB013	**Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Ajo, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036g	1AB013	**Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Morenci, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036h	1AB013	**Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Douglas, Cooper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036i	1AB013	**Design and Operating Parameters for Emission Control Studies: ASARCO, El Paso, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036j	1AB013	**Design and Operating Parameters for Emission Control Studies: ASARCO, Hayden, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-036k	1AB013	**Design and Operating Parameters for Emission Control Studies: ASARCO, Tacoma, Copper Smelter** BY I. J. Weisenberg, and J. C. Serne, Pacific Environmental Services, Inc. Santa Monica, CA **ORDER FROM:** Pending
600/2-76-037	1AB015	**Catalytic Oxidation of Fuels for NO$_x$ Control from Area Sources** BY J. P. Kesselring, R. A. Brown, R. J. Schrieber, and C. B. Moyer, Acurex Corporation Mountain View, CA **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-76-038	1AB014	**Residential Oil Furnace System Optimization—Phase I** BY L. P. Combs, and A. S. Okuda, Rockwell International Corporation Canoga Park, CA **ORDER FROM: NTIS-PB** 250 878/AS $7.75
600/2-76-039	1AB014	**Chemistry of Fuel Nitrogen Conversion to Nitrogen Oxides in Combustion** BY A. E. Axworthy, G. R. Schneider, M. D. Shuman, and V. H. Dayan, Rockwell International Corporation Canoga Park, CA **ORDER FROM: NTIS-PB** 250 373/AS $10.50
600/2-76-040	1AB012	**Evaluation of Electrofluidized Bed** BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 250 606/AS $4.00
600/2-76-041	1AB012	**Evaluation of Electric Field Fabric Filtration** BY M. P. Schrag, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 250 502/AS $4.00
600/2-76-042	1AB012	**Particulate Control Mobile Test Units: First Year's Operation** BY R. E. Opferkuch, Monsanto Research Corporation Dayton, OH **ORDER FROM:** Pending
600/2-76-043	1BB039	**Modeling Pesticides and Nutrients on Agricultural Lands** BY A. S. Donigian Jr., and N. H. Crawford, Hydrocomp, Inc. Palo Alto, CA **ORDER FROM: NTIS-PB** 250 566/AS $10.00
600/2-76-044a	1AB013	**Energy Supply, Demand/Need, and the Gaps Between: Volume I – An Overview** BY J. W. Meyer, W. J. Jones, and M. M. Kessler, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 251 136/AS $5.00
600/2-76-044b	1AB013	**Energy Supply, Demand/Need, and the Gaps Between: Volume II – Monographs and Working Papers** BY J. W. Meyer, W. J. Jones, and M. M. Kessler, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM:** Pending
600/2-76-045	1BB036	**Elimination of Washer Slimes from the Production of Phosphate Chemicals** BY R. C. Cannon, R. S. Ribas, J. D. Nickerson, and R. A. Weisback, U.S. Steel Corporation Decatur, GA **ORDER FROM: NTIS-PB** 250 364/AS $6.00
600/2-76-046a	EHB525	**Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume I – Executive Summary** BY N. Surprenant, R. Hall, and L. M. Seale, GCA Corporation Bedford, MA **ORDER FROM:** Pending
600/2-76-046b	EHB525	**Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume II – Final Report** BY N. Surprenant, R. Hall, S. Slater, T. Susa, M. Sussman, and C. Young, GCA Corporation Bedford, MA **ORDER FROM:** Pending
600/2-76-047	1AB014	**Molecular Sieve Tests for Control of Sulfuric Acid Plant Emissions** BY K. R. Boldt, and R. F. Timmons, York Research Corporation Stamford, CT **ORDER FROM:** Pending
600/2-76-048a	1AB015	**Molecular Sieve Tests for Control of NO_x Emissions from a Nitric Acid Plant; Volume I** BY J. T. Chehaske, and J. S. Greenburg, Engineering Science, Inc. McLean, VA **ORDER FROM:** Pending
600/2-76-048b	1AB015	**Molecular Sieve Tests for Control of NO Emissions From A Nitric Acid Plant; Volume II—Appendices** BY J. T. Chehaske, and J. S. Greenburg, Engineering Science, Inc. McLean, VA **ORDER FROM:** Pending
600/2-76-049a	1AB013	**Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume I** BY R. M. Wells, and W. E. Corbett, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-049b	1AB013	**Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume II—Appendix** BY R. M. Wells, and W. E. Corbett, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-050	1BB392	**Economic Assessment of Backfitting Power Plants with ClosedCycle Cooling Systems** BY A. R. Giaquinta, T. E. Croley II, V. C. Patel, J. G. Melville, M. S. Cheng, and A. S. Uzuner, Iowa, University of Iowa City, IA **ORDER FROM: NTIS-PB** 251 189/AS $10.75
600/2-76-051a	1AB015	**Environmental Catalog of Industrial Processes; Volume I—Oil/ Gas Production Petroleum Refining, Carbon Black, and Basic Petrochemicals** BY T. Parsons, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-051b	1AB015	**Environmental Catalog of Industrial Processes; Volume II— Industrial Organic Chemicals** BY T. Parsons, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-051c	1AB015	**Environmental Catalog of Industrial Processes; Volume III— Organic Dyes/Pigments and Pesticides** BY T. Parsons, Radian Corporation Austin, TX **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-76-051e	1AB015	**Environmental Catalog of Industrial Processes; Volume V— Brine/Evaporite Chemicals, Fluorocarbon/Hydrogen Fluoride, and Gypsum/Wallboard** BY T. Parsons, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-051g	1AB015	**Environmental Catalog of Industrial Processes; Volume VII— Iron and Steel, Primary Aluminum, and Titanium** BY T. Parsons, and G. Wilkins, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-052	1AB012	**Impact of Clean Fuels Combustion on Primary Particulate Emissions From Stationary Sources** Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM:** Pending
600/2-76-053	1AB015	**Hydrocarbon Emissions Reduction From Ethylene Dichloride Processes** BY W. S. Amato, B. Bandyopadhyay, B. E. Kurtz, and R. H. Fitch, Allied Chemical Corporation Solvay, NY **ORDER FROM:** Pending
600/2-76-054	1AB015	**Control of Steel Plant Scarfing Emissions Using Wet Electrostatic Precipitators** BY J. Varga Jr., Battelle-Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 251 152/AS $4.00
600/2-76-055	1AB012	**Evaluation of Electrostatic Augmentation for Fine Particle Control** BY D. W. Cooper, and M. T. Rei, GCA Corporation Bedford, MA **ORDER FROM:** Pending
600/2-76-056	EHB527	**Comparison of Fossil and Wood Fuels** BY E. H. Hall, C. M. Allen, D. A. Ball, J. E. Burch, H. N. Conkle, W. T. Lawhon, T. J. Thomas, and G. R. Smithson Jr., Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending
600/2-76-057	1AB013	**Carbon Oxidation Catalyst Mechanism Study for Fuel Cells** BY Y. C. Pan, Exxon Research and Engineering Company Linden, NJ **ORDER FROM:** Pending
600/2-76-058	1BB034	**Future Direction of Urban Water Models** BY M. B. Sonnen, L. A. Roesner, and R. P. Shubinski, Water Resources Engineers, Inc. Walnut Creek, CA **ORDER FROM: NTIS-PB** 249 049/AS $5.00
600/2-76-059	6NA442	**Comparison of Wet Chemical and Instrumental Methods for Measuring Airborne Sulfate – Interim Report** BY B. R. Appel, E. L. Kothny, E. M. Hoffer, and J. J. Wesolowski, California Department of Health Berkeley, CA **ORDER FROM:** Pending
600/2-76-060	1BB036	**Hyperfiltration for Renovation of Textile Finishing Plant Wastewater** BY C. A. Brandon, and J. J. Porter, Riegel Textile Corporation LaFrance, SC **ORDER FROM: NTIS-PB** 251 188/AS $6.75
600/2-76-061a	1AB014	**Burner Criteria for NOx Control; Volume I—Influence of Burner Variables on NOx in Pulverized Coal Flames** BY M. P. Heap, T. M. Lowes, R. Walmsley, H. Bartelds, and P. Levaguerese, International Flame Research Foundation IJmuiden, Holland, FC **ORDER FROM:** Pending
600/2-76-062	1AA010	**Optimal Method for Measuring the Mass Concentration of Particulate Emissions** BY G. R. Markowski, G. J. Waffinden, and D. S. Ensor, Meteorology Research, Inc. Altadena, CA **ORDER FROM:** Pending
600/2-76-063	1AB012	**POPEX—Ranking Air Pollution Sources by Population Exposure** BY L. R. Babcock Jr., and N. L. Nagda, Illinois, University of, Medical Center Chicago, IL **ORDER FROM:** Pending
600/2-76-064	1AB013	**Atmospheric Pollution Potential from Fossil Fuel Resource Extraction, On-Site Processing, and Transportation** BY E. C. Cavanaugh, G. M. Clancy, J. D. Colley, P. S. Dzierlenga, V. M. Felix, D. C. Jones, and T. P. Nelson, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-065	1AB015	**Assessment of Particle Control Technology for Enclosed Asbestos Sources—Phase II** BY P. C. Siebert, T. C. Ripley, and C. F. Harwood, IIT Research Institute Chicago, IL **ORDER FROM:** Pending
600/2-76-066	1AB012	**Evaluation of Turbulent Agglomeration for Fine Particle Control** BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending
600/2-76-067	1AB012	**Evaluation of Thermal Agglomeration for Fine Particle Control** BY K. P. Ananth, and L. J. Shannon, Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending
600/2-76-068a	1AB012	**Defense Technology for Environmental Protection; Volume I— Final Report** BY E. A. Byrd, O. M. Meredith, and S. Gee, U.S. Naval Surface Weapons Center Silver Spring, MD **ORDER FROM:** Pending
600/2-76-068b	1AB012	**Defense Technology for Environmental Protection; Volume II— Bibliography** BY E. A. Byrd, O. M. Meredith, and S. Gee, U.S. Naval Surface Weapons Center Silver Spring, MD **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.

600/2–76–069 EHB525 **Environmental Assessment Perspectives** BY P. F. Fennelly, D. F. Durocher, A. S. Werner, M. T. Mills, S. M. Weinstein, A. H. Castaline, and C. Young, GCA Corporation Bedford, MA **ORDER FROM:** Pending

600/2–76–070 EHB528 **Disposal of Flue Gas Cleaning Wastes: EPA Shawnee Field Evaluation—Initial Report** BY R. B. Fling, W. M. Graven, F. D. Hess, P. P. Leo, R. C. Rossi, and J. Rossoff, Aerospace Corporation Los Angeles, CA **ORDER FROM:** Pending

600/2–76–071 1AB013 **Energy Conservation Techniques for the Iron Foundry Cupola** BY D. J. Martin, Flynn and Emrich Company Baltimore, MD **ORDER FROM:** Pending

600/2–76–072 EHB524 **Technical Manual for Analysis of Organic Materials in Process Streams** BY P. W. Jones, A. P. Graffeo, R. Detrick, P. A. Clark, and R. J. Jakobsen, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending

600/2–76–073 1AB012 **Wind Tunnel Evaluation of Particle Sizing Instruments** BY C. H. Gooding, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 251 172/AS $4.50

600/2–76–074 1AB012 **Effect of Filtration Parameters on Dust Cleaning Fabrics** BY J. R. Koscianowski, and L. Koscianowska, Institute of Industry of Cement Building Materials Opole, Poland, FC **ORDER FROM: NTIS-PB** 251 145/AS $7.50

600/2–76–075 1AB015 **Analysis of Polycyclic Organic Materials in Coal, Coal Ash, Fly Ash, and Other Fuel and Emission Samples** BY A. G. Sharkey, J. L. Schultz, C. White, and R. Lett, U.S. Energy Research and Development Administration Pittsburgh, PA **ORDER FROM:** Pending

600/2–76–076 1AB013 **Assessment of the Degree of Flexibility in Fuel Distribution Patterns** BY E. H. Hall, A. A. Putnam, and R. L. Major, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending

600/2–76–077a 1AB012 **Fractional Efficiency of a Utility Boiler Baghouse: Sunbury Steam-Electric Station** BY R. W. Cass, and R. M. Bradway, GCA Corporation Bedford, MA **ORDER FROM:** Pending

600/2–76–078 1BB392 **Cost Estimating Methodology for Once-Through Cooling Water Discharge Modifications** BY J. W. Hayden, and R. Mayer, Acres American, Inc. Buffalo, NY **ORDER FROM:** Pending

600/2–76–079 1AB015 **Flare Systems Study** BY M. G. Klett, and J. B. Galeski, Lockheed Missiles and Space Company, Inc. Huntsville, AL **ORDER FROM:** Pending

600/2–76–080 EHB557 **Quality Assurance Program for the EPA/Shawnee Wet Limestone Scrubber Demonstration** BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending

600/2–76–081 EHB557 **Guidelines for Demonstration Project Quality Assurance Programs** BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending

600/2–76–082 1BB033 **Tertiary Treatment for Phosphorus Removal at Ely, Minnesota AWT Plant, April 1973 thru March 1974** BY J. W. Sheehy, and F. L. Evans III, Municipal Environmental Research Laboratory, EPA Cincinnati, OH **ORDER FROM:** Pending

600/2–76–083 EHB557 **Development and Trial Field Application of a Quality Assurance Program for Demonstration Projects** BY J. Buchanan, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending

600/2–76–084 EHE626 **Conoco Dolomite Hot Gas Clean-up System** BY E. D. Oliver, and K. T. Semrau, Stanford Research Institute Menlo Park, CA **ORDER FROM:** Pending

600/2–76–085 EHE626 **Gasification/Combined-Cycle System for Electric Power Generation** BY J. B. Truett, Mitre Corporation McLean, VA **ORDER FROM:** Pending

600/2–76–086a 1AB014 **Field Testing: Application of Combustion Modifications to Control Pollution Emissions from Industrial Boilers – Phase II** BY G. A. Cato, L. J. Muzio, and D. E. Shore, KVB Engineering, Inc. Tustin, CA **ORDER FROM:** Pending

600/2–76–087 1AB012 **Vegetative Stabilization of Mineral Waste Heaps** BY R. P. Donovan, R. M. Felder, and H. H. Rogers, Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending

600/2–76–088 1AB014 **Guidelines for Burner Adjustments of Commercial Oil-FiredBoilers** BY D. W. Locklin, and R. E. Barrett, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/2-76-089a	1AB015	**Technical Manual for Measurement of Fugitive Emissions: Upwind/Downwind Sampling Method for Industrial Emissions** BY H. J. Kolmsberg, Research Corporation of New England Wethersfield, CT **ORDER FROM:** Pending
600/2-76-090	1AB013	**Clean Fuels from Agricultural and Forestry Wastes** BY J. W. Tatom, A. R. Colcord, J. A. Knight, and L. W. Elston, Georgia Institute of Technology Atlanta, GA **ORDER FROM:** Pending
600/2-76-091	EHB527	**Sulfur Reduction Potential of U.S. Coals: A Revised Report of Investigations** BY J. A. Cavallaro, M. T. Johnston, and A. W. Deurbrouck, U.S. Department of the Interior Pittsburgh, PA **ORDER FROM:** Pending
600/2-76-092	1AB012	**Total Suspended Particulates: Review and Analysis** BY R. M. Wells, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/2-76-093b	1AB013	**Field Test Sampling/Analytical Strategies and Implementation Cost Estimates: Coal Gasification and Flue Gas Desulfurization** BY J. W. Hamersma, and S. L. Reynolds, TRW Systems Group Redondo Beach, CA **ORDER FROM:** Pending
600/2-76-094	1AA010	**Rapid Method for Determining NOx Emissions in Flue Gases** BY H. M. Barnes, and M. C. Caldwell, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/2-76-095	1BC611	**Urban Runoff Pollution Control Program Overview: FY 76** BY R. Field, A. N. Tafuri, and H. E. Masters, Municipal Environmental Research Laboratory, EPA Edison, NJ **ORDER FROM:** Pending
600/3-75-001	1BA031	**Fisheries and Energy Production: A Symposium --- Abstracted 600/9-75-001a** --BY S. B. Saila, Rhode Island, University of Kingston, RI **ORDER FROM: NTIS-PB** 242 350/AS
600/3-75-002		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/3-75-003a	1AA009	**Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input** BY H. Rosenblum, B. Egan, C. Ingersol, and M. Keefe, Environmental Research and Technology, Inc. Concord, MA **ORDER FROM:** Pending
600/3-75-003b	1AA009	**Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input - Appendices** BY H. Rosenblum, B. Egan, C. Ingersol, and M. Keefer, Environmental Research and Technology, Inc. Concord, MA **ORDER FROM:** Pending
600/3-75-004a		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/3-75-004b		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/3-75-005	1AB026	**Inputs of Phosphorus from Precipitation to Lake Michigan --- Abstracted 600/9-75-001d** --BY T. J. Murphy, and P. V. Doskey, DePaul University Chicago, IL **ORDER FROM:** Pending
600/3-75-006		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/3-75-007	1BA022	**Metabolism of Mercury Compounds in Microorganisms --- Abstracted 600/9-75-001d** --BY R. R. Colwell, and J. D. Nelson Jr., Maryland, University of College Park, MD **ORDER FROM: NTIS-PB** 249 000/AS $5.00
600/3-75-008	1BA022	**Second Annotated Bibliography of Biological Effects of Metals in Aquatic Environments --- Abstracted 600/9-75-001d** --BY R. Eisler, and M. Wapner, Environmental Research Laboratory, EPA Narragansett, RI **ORDER FROM: NTIS-PB** 248 211/AS $11.00
600/3-75-009	1BA031	**Limnological Investigation of the Muskegon County, Michigan, Wastewater Storage Lagoons—Phase One --- Abstracted 600/9-75-001d** --BY W. R. Frykberg, G. J. Goodnight, and P. G. Meier, Western Michigan University Kalamazoo, MI **ORDER FROM: NTIS-PB** 245 631/AS $5.25
600/3-75-010a	1AA002	**Annual Catalyst Research Program Report—Summary --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 908/AS $4.50
600/3-75-010b	1AA002	**Annual Catalyst Research Program Report Appendices, Volume I --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM:** Special Studies Staff, Research Triangle Park, NC 27711
600/3-75-010c	1AA002	**Annual Catalyst Research Program Report Appendices, Volume II --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 909/AS $9.00

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/3-75-010d	1AA002	**Annual Catalyst Research Program Report Appendices, Volume III --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 911/AS $8.00
600/3-75-010e	1AA002	**Annual Catalyst Research Program Report Appendices, Volume IV --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM:** Special Studies Staff, Research Triangle Park, NC 27711
600/3-75-010f	1AA002	**Annual Catalyst Research Program Report Appendices, Volume V --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 912/AS $9.00
600/3-75-010g	1AA002	**Annual Catalyst Research Program Report Appendices, Volume VI --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM:** Special Studies Staff, Research Triangle Park, NC 27711
600/3-75-010h	1AA002	**Annual Catalyst Research Program Report Appendices, Volume VII --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 913/AS $9.25
600/3-75-010i	1AA002	**Annual Catalyst Research Program Report Appendices, Volume VIII --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM:** Special Studies Staff, Research Triangle Park, NC 27711
600/3-75-010j	1AA002	**Annual Catalyst Research Program Report Appendices, Volume IX --- Abstracted 600/9-75-001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM:** Special Studies Staff, Research Triangle Park, NC 27711
600/3-75-011	1DB064	**Compilation of Methodology Used for Measuring Pollution Parameters of Sanitary Landfill Leachate --- Abstracted 600/9-75-001d** --BY E. S. K. Chian, and F. B. DeWalle, Illinois, University of Urbana, IL **ORDER FROM: NTIS-PB** 248 102/AS $7.50
600/3-75-012	1BA021	**Comparative Toxicity of Sewage-Effluent Disinfection to Freshwater Aquatic Life --- Abstracted 600/9-75-001d** --BY J. W. Arthur, R. W. Andrew, V. R. Mattson, D. T. Olson, G. E. Glass, B. J. Halligan, and C. T. Wallbridge, Environmental Research Laboratory, EPA Duluth, MN **ORDER FROM: NTIS-PB** 248 653/AS $4.50
600/3-75-013	1BA021	**Toxaphene Effects on Reproduction, Growth, and Mortality of Brook Trout** BY F. L. Mayer Jr., P. M. Mehrle Jr., and W. P. Dwyer, U.S. Department of the Interior Columbia, MO **ORDER FROM: NTIS-PB** 249 303/AS $4.50
600/3-75-014	1AA006	**Methylation of Mercury in a Terrestrial Environment --- Abstracted 600/9-75-001d** --BY R. D. Rogers, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 248 221/AS $3.50
600/3-75-015	1BA025	**Environmental Trace Materials: Computer Coupled Radioactivation Analysis** BY M. H. Feldman, D. E. Cawlfield, and K. V. Byram, Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM:** Pending
600/3-76-001	1BA023	**Dynamic Behavior of Vinyl Chloride in Aquatic Ecosystems** BY J. Hill IV, H. P. Kollig, D. F. Paris, N. L. Wolfe, and R. G. Zepp, Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 249 302/AS $4.50
600/3-76-002	EHA446	**Bioenvironmental Impact of a Coal-Fired Power Plant – First Interim Report, Colstrip, Montana, December 1974** BY R. A. Lewis, and A. S. Lefohn, Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 251 162/AS $5.50
600/3-76-003	1BA025	**Results of Ocean Diffusion and Biological Studies of the Hollywood, Florida, Ocean Outfall** BY J. D. Crane, and R. H. Jones, City of Hollywood Hollywood, FL **ORDER FROM: NTIS-PB** 247 684/AS $5.50
600/3-76-004	1EA077	**Herbicide Toxicity in Mangroves** BY H. J. Teas, Miami, University of Coral Gables, FL **ORDER FROM:** Pending
600/3-76-005	1FA083	**Americium – Its Behavior in Soil and Plant Systems** BY K. W. Brown, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 250 797/AS $3.50
600/3-76-006	1FA083	**Tritium Accumulation in Lettuce Fumigated with Elemental Tritium** BY J. C. McFarlane, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 250 428/AS $3.50
600/3-76-007	1EA077	**Effects of Mirex, Methoxychlor, and Malathion on Development of Crabs** BY C. G. Bookhout, and J. D. Costlow Jr., Duke University Marine Laboratory Beaufort, NC **ORDER FROM:** Pending
600/3-76-008	1BA021	**Acute Toxicity of Selected Toxicants to Six Species of Fish** BY R. D. Cardwell, D. G. Foreman, T. R. Payne, and D. J. Wilbur, Chemico Process Plants Company Envirogenics System El Monte, CA **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.

600/3-76-009 1BA608 **Toxicity of Chlorinated Power Plant Condenser Cooling Waters to Fish** BY R. E. Basch, and J. G. Truchan, Michigan Water Resources Commission Lansing, MI **ORDER FROM:** Pending

600/3-76-010 1AA003 **Isotopic Composition of Carbon Monoxide in St. Louis, Missouri Area** BY L. E. Ross, A. Engelkemeier, and E. E. Voiland, Argonne National Laboratory Argonne, IL **ORDER FROM:** Pending

600/3-76-011a 1AA003 **Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 1** Rockwell International Corporation Newbury Park, CA **ORDER FROM: NTIS-PB** 249 613/AS $16.25

600/3-76-011b 1AA003 **Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 2** Rockwell International Corporation Newbury Park, CA **ORDER FROM: NTIS-PB** 250 113/AS $13.50

600/3-76-011c 1AA003 **Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 3** Rockwell International Corporation Newbury Park, CA **ORDER FROM: NTIS-PB** 250 114/AS $10.75

600/3-76-012 1A1008 **Study of Pan-Type Compounds and Related Precursors** BY I. J. Solomon, and M. Lustig, IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 250 559/AS $3.50

600/3-76-013 EHA541 **Bioenvironmental Impact of a Coal-Fired Power Plant Second Interim Report, Colstrip, Montana, June 1975** BY R. A. Lewis, N. R. Glass, and A. S. Lefohn, National Ecological Research Laboratory, EPA Corvallis, OR **ORDER FROM:** Pending

600/3-76-014 1BA029 **Influence of Land Use on Stream Nutrient Levels** BY J. M. Omernik, Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 251 150/AS $5.50

600/3-76-015 1AA008 **Effects of Gaseous Pollutants on Materials—A Chamber Study** BY F. H. Haynie, J. W. Spence, and J. B. Upham, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending

600/3-76-016 1AA003 **Regional Air Pollution Study: Expeditionary Research Program, Summer 1975** BY W. C. Zegel, Rockwell International Corporation Thousand Oaks, CA **ORDER FROM:** Pending

600/3-76-017 1AA008 **Photochemical Oxidants in the Ambient Air of the United States** BY B. Dimitriades, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending

600/3-76-018 1AA008 **Transport of Oxidant Beyond Urban Areas** BY W. S. Chester, J. L. Gemma, D. W. Joseph, P. R. Stricksel, and G. F. Ward, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending

600/3-76-019 1FA083 **Ruthenium: Its Behavior in Plant and Soil Systems** BY K. W. Brown, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 251 107/AS $4.00

600/3-76-020 1BA026 **Numerical Models of Lake Currents** BY W. Lick, Case Western Reserve University Cleveland, OH **ORDER FROM:** Pending

600/3-76-021 1BA608 **Temperature, Infectious Diseases and the Immune Response in Salmonid Fish** BY J. L. Fryer, K. S. Pilcher, J. E. Sanders, J. S. Rohovec, J. L. Zinn, W. J. Groberg, and R. H. McCoy, Oregon State University Corvallis, OR **ORDER FROM:** Pending

600/3-76-022 1BA023 **Degradation of Persistent Pesticides by Algae** BY J. C. O'Kelley, and T. R. Deason, Alabama, University of University, AL **ORDER FROM:** Pending

600/3-76-023 1BA608 **Geochemical Interactions of Heavy Metals in Southeastern Salt Marsh Environments** BY H. J. Windom, Skidaway Institute of Oceanography Savannah, GA **ORDER FROM:** Pending

600/3-76-024 1AA008 **Investigation of Gas Phase Ozonolysis Reactions** BY D. G. Williamson, California Polytechnic State University San Luis Obispo, CA **ORDER FROM:** Pending

600/3-76-025 1FA083 **Biological Transfer of Plutonium via *in vivo* Labeled Goat's Milk** BY W. W. Sutton, A. A. Mullen, S. R. Lloyd, and R. E. Mosley, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM:** Pending

600/3-76-026 1BA608 **Design Guidelines for Agricultural Soil Warming Systems Utilizing Waste Heat** BY D. L. Slegel, Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM:** Pending

600/3-76-027 1BA022 **Biological Impact Caused by Changes on a Tropical Reef** BY R. S. Jones, R. H. Randall, and M. J. Wilder, Guam, University of Agana, GU **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/3-76-028	1BA022	**Survey of Marine Communities in Panama and Experiments with Oil** BY C. Birkeland, A. A. Reimer, and J. R. Young, Smithsonian Tropical Research Institute Balboa, CZ **ORDER FROM:** Pending
600/3-76-029	1AA008	**Smog Chamber Conference Proceedings** BY B. Dimitriades, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/3-76-030	1AA008	**Fate of Nitrogen Oxides in the Atmosphere** BY C. W. Spicer, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending
600/3-76-031	1AA006	**Effects of Ozone on Nitrogen Fixation in Ladino Clover** BY U. Blum, and M. Letchworth, North Carolina State University Raleigh, NC **ORDER FROM:** Pending
600/3-76-032	1AA006	**Effects of Sulfur Dioxide and/or Ozone on Several Oat Varieties – 1975 Annual Report** BY W. W. Heck, and J. A. Dunning, North Carolina State University Raleigh, NC **ORDER FROM:** Pending
600/3-76-033	1BA608	**Acute Toxicity of Certain Pesticides to *Acartia tonsa* Dana** BY F. H. Khattat, and S. Farley, Hazleton Laboratories Vienna, VA **ORDER FROM:** Pending
600/3-76-034	1BA032	**Effect of Mechanical Cooling Devices on Ambient Salt Concentration** BY H. E. Hunter, ADAPT Service Corporation Reading, MA **ORDER FROM:** Pending
600/3-76-035	1AA601	**General Motors/Environmental Protection Agency Sulfate Dispersion Experiment Selected EPA Research Papers** BY R. K. Stevens, P. J. Lamothe, W. E. Wilson, and J. L. Durham, Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/3-76-036	1BA608	**Effects of Chlorine and Sulfite Reduction on Lake Michigan Invertebrates** BY A. M. Beeton, P. K. Kovacic, and A. S. Brooks, Wisconsin, University of Milwaukee, WI **ORDER FROM:** Pending
600/3-76-037	1BA029	**Tropic Classification of Lakes Using LANDSAT-1 (ERTS-1) Multispectral Scanner Data** BY D. H. P. Boland, Environmental Ressarch Laboratory, EPA Corvallis, OR **ORDER FROM:** Pending
600/4-73-001a	1HA325	**Ground Water Pollution Features of Federal and State Laws and Regulations** BY F. Van Der Leeden, Geraghty and Miller, Inc. Port Washington, NY General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA **ORDER FROM: NTIS-PB** 232 116/AS $4.75
600/4-73-001b	1HA325	**Polluted Groundwater: Some Causes, Effects, Controls and Monitoring** BY C. F. Meyer, General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA **ORDER FROM: NTIS-PB** 232 117/AS $8.75
600/4-74-001	1HA325	**Polluted Groundwater: A Review of the Significant Literature** BY D. K. Todd, General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA **ORDER FROM: NTIS-PB** 235 556/AS $5.75
600/4-74-002		**(No. Cancelled) ORDER FROM:** See 680/4-74-002
600/4-74-003		**(No. Cancelled) ORDER FROM:** See 680/4-74-003
600/4-74-004	1HA326	**Proceedings of Seminar on Methodology for Monitoring the Marine Environment** Office of Monitoring Systems, EPA Washington, DC **ORDER FROM: NTIS-PB** 239 052/AS $11.75
600/4-75-001	1HA325	**Directory of EPA, State and Local Environmental Quality Monitoring and Assessment Activities — Abstracted 600/9-75-001b** —BY J. W. Scotton, and K. T. Mullen, Office of Monitoring Systems, EPA Washington, DC BY J. Whitman, and R. Citron, Smithsonian Institution Cambridge, MA **ORDER FROM: NTIS-PB** 241 757/AS $10.25
600/4-75-002	1AA010	**Low Cost Compact X-Ray Flourescent Analyzer for On-Site Measurement of Trace Element in Airborne Particulate Emission** BY L. S. Birks, and J. V. Gilfrich, Naval Research Laboratory Washington, DC **ORDER FROM:** Pending
600/4-75-003	1HA327	**Technical Support Document for the Proposed Replacement Reference Method for Nitrogen Dioxide** BY E. C. Ellis, and J. H. Margeson, Quality Assurance Branch, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/4-75-004	1AA009	**Atmospheric Turbulence Properties in the Lowest 300 Meters** BY A. H. Weber, J. S. Irwin, J. P. Kahler, and W. B. Petersen, North Carolina State University Raleigh, NC **ORDER FROM: NTIS-PB** 246 215/AS $6.25
600/4-75-005a	1AA003	**Development of Urban Air Quality Simulation Model With Compatible RAPS Data – Vol. I** BY C. C. Fhir, and L. J. Shiek, IBM Research Laboratory San Jose, CA **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/4-75-006	1AA009	**Dispersion From Pall Pack** BY W. Klug, Pechnische Hochschule Darmstadt Hochschulfpr, GY **ORDER FROM:** Pending
600/4-75-007	1BA027	**Analytical Quality Assurance for Trace Organic Analysis by Gas Chromatography/Mass Spectrometry** BY J. W. Eichelberger, W. M. Middleton, and W. L. Budde, Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 245 823/AS $3.25
600/4-75-008	H120	**Interim Radiochemical Methodology for Drinking Water --- Abstracted 600/9-75-001c** --Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 245 406/AS $4.25
600/4-75-009	1AA001	**Collection and Analysis of Airborne Suspended Particulate Matter Respirable to Humans for Sulfates and Polycyclic Organics --- Abstracted 600/9-75-001d** --BY W. M. Henry, and R. I. Mitchell, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending
600/4-75-010	1HA326	**Hydrocarbon Measurement Discrepancies Among Various Analyzers Using Flame-Ionization Detectors --- Abstracted 600/9-75-001d** --BY F. F. McElroy, and V. L. Thompson, Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 247 821/AS $4.00
600/4-75-011	1HA327	**Analysis of Carbon-14 and Tritium in Reactor Stack Gas --- Abstracted 600/9-75-001d** --BY S. Gold, Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 248 286/AS $3.50
600/4-75-012	1HA327	**Recommended Design of Sample Intake Systems for Automatic Instrumentation --- Abstracted 600/9-75-001d** --BY R. P. Lauch, Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 248 733/AS $4.00
600/4-75-013	1HA327	**Tentative Reference Method for Measurement of Tritium in Environmental Waters --- Abstracted 600/9-75-001d** --Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM:** Pending
600/4-75-014	1HA327	**Radiation Quality Assurance Intercomparison Studies 1974-1975 --- Abstracted 600/9-75-001d** --- Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 248 171/AS $4.00
600/4-75-015	1BA029	**NATIONAL EUTROPHICATION SURVEY—Data Acquisitions and Laboratory Analysis System for Lake Samples --- Abstracted 600/9-75-001d** --BY J. W. Mullins, R. N. Snelling, D. D. Moden, and R. G. Seals, Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 248 175/AS $4.00
600/4-75-016a	1AA009	**Turbulence Modeling and Its Application to Atmospheric Diffusion. Part I: Recent Program Development, Verification, and Application --- Abstracted 600/9-75-001d** --BY W. S. Lewellen, and M. Teske, Aeronautical Research Associates of Princeton, Inc. Princeton, NJ **ORDER FROM:** Pending
600/4-75-016b	1AA009	**Turbulence Modeling and Its Application to Atmospheric Diffusion. Part II: Critical Review of the Use of Invariant Modeling --- Abstracted 600/9-75-001d** --BY W. S. Lewellen, and M. Teske, Aeronautical Research Associates of Princeton, Inc. Princeton, NJ **ORDER FROM:** Pending
600/4-76-001	1AA603	**Determination of Height for Stack Near Building—Wind Tunnel Study** BY W. H. Snyder, and R. E. Lawson Jr., Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/4-76-002	1AA009	**Modeling of the Effects of Pollutants and Dispersion in Urban Atmospheres** BY R. Viskanta, R. W. Bergstrom Jr., and R. O. Johnson, Purdue Research Foundation West Lafayette, IN **ORDER FROM:** Pending
600/4-76-003		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/4-76-004	1BA027	**Techniques for Optimizing a Quadrupole GC/MS/Computer System** BY M. H. Carter, Environmental Research Laboratory, EPA Athens, GA **ORDER FROM:** Pending
600/4-76-005	1BA027	**Determining Tetrafluoroborates, an Evaluation of Fluoroborate Anion Selective Electrode** BY B. T. Duhart, Bennett College Greensboro, NC **ORDER FROM: NTIS-PB** 250 369/AS $4.00
600/4-76-006	1HD621	**Coding Manual for the Quality Assurance Performance Audit for Aerometric Data** BY R. C. Rhodes, and D. H. Fair, Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/4-76-007	1AA009	**Spectral Modeling of Atmospheric Flows and Turbulent Diffusion** BY A. Bass, and S. A. Orszag, Flow Research, Inc. Cambridge, MA **ORDER FROM:** Pending
600/4-76-008	1HD621	**Measurement of Atmospheric Sulfates: Literature Search and Methods Selection** BY F. J. Bergman, Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/4–76–009	1AA009	**Mobile Lidar Study of the Los Angeles Mixing Layer** BY D. T. Liu, System Innovation and Development Corporation Rolling Hills Estates, CA **ORDER FROM:** Pending
600/4–76–010	1BB612	**Quantitative Method for Toxaphene by GC-CI-MS Specific Ion Monitoring** BY A. D. Thruston Jr., Environmental Research Laboratory, EPA Athens, GA **ORDER FROM:** Pending
600/4–76–011	1HA327	**Measurement of Strontium-89 and Strontium-90 in Environmental Waters: A Tentative Reference Method** Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM:** Pending
600/4–76–012	1HA327	**Measurement of Total Radium and Radium-226 in Environmental Waters: A Tentative Reference Method** Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV **ORDER FROM:** Pending
600/4–76–013	1AA003	**Methodology for Inventorying Hydrocarbons** BY P. DiGasbarro, and M. Bornstein, GCA Corporation Boston, MA **ORDER FROM:** Pending
600/4–76–014	1HA327	**Collaborative Study of Particulate Emissions Measurements by EPA Methods 2, 3, and 5 Using Paired Particulate Sampling Trains (Municipal Incinerators)** BY H. F. Hamil, and R. E. Thomas, Southwest Research Institute San Antonio, TX **ORDER FROM:** Pending
600/4–76–015	1HD621	**Measurement of Atmospheric Sulfates: Evaluation of the Methylthymol Blue Method** BY F. J. Bergman, and M. C. Sharp, Midwest Research Institute Kansas City, Mo **ORDER FROM:** Pending
600/5–73–001	1HA094	**Economic Damages to Household Systems From Water Supply Use** BY D. P. Tihansky, Office of Research and Development, Implementation Research Division, EPA Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–001 $1.30 **NTIS-PB** 235 716/AS $3.30
600/5–73–002	1RW103	**Bibliography of R&D Research Reports – July 1973** Office of Research and Development, Publications Staff, Office of Program Management, EPA Washington, DC **ORDER FROM:** (Superseded by Current Bibliography)
600/5–73–003	1HA093	**Intermedia Aspects of Air and Water Pollution Control** BY R. Stone, und H. Smallwood, Ralph Stone and Company, Inc. Los Angeles, CA **ORDER FROM: GPO-**EP1.23/3:600/5–73–003 $3.15 **NTIS-PB** 224 812/AS
600/5–73–004	1AB013	**Environmental Consideration in Future Energy Growth** Battelle Memorial Institute Columbus, OH **ORDER FROM: NTIS-PB** 239 157/AS $15.25
600/5–73–005	1HA094	**Benefit of Water Pollution Control on Property Values** BY D. M. Dornbusch, and S. M. Barrager, David M. Dornbusch and Company San Francisco, CA **ORDER FROM: GPO-**EP1.23/3:600/5–73–005 $1.60 **NTIS-PB** 228 590/AS
600/5–73–006		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/5–73–007	1HA096	**Critique of Pollution Time Allocation in River Basin Model** BY P. G. Hammer Jr., North Carolina, University of, Center for Urban and Regional Studies Chapel Hill, NC **ORDER FROM: GPO-**EP1.23/3:600/5–73–007 $3.40 **NTIS-PB** 238 489 $5.90
600/5–73–008a	1HA094	**State-of-the-Art Review: Water Pollution Control Benefits and Costs – Volume I** BY S. G. Unger, M. J. Emerson, and D. L. Jordening, Development Planning and Research Associates, Inc. Manhattan, KS **ORDER FROM: GPO-**EP1.23/3:600/5–73–008a $1.45 **NTIS-PB** 228 603/AS
600/5–73–008b	1HA094	**Research Needs and Priorities: Water Pollution Control Benefits and Cost – Volume II** BY D. L. Jordening, and J. K. Allwood, Development Planning and Research Associates, Inc. Manhattan, KS **ORDER FROM: GPO-**EP1.23/3:600/5–73–008b $2.10 **NTIS-PB** 228 602/AS
600/5–73–009	1HA098	**Aesthetics in Environmental Planning** BY M. Bagley, Stanford Research Institute Menlo Park, CA **ORDER FROM: GPO-**EP1.23/3:600/5–73–009 $2.05 **NTIS-PB** 229 574/AS
600/5–73–010	1HA097	**Managing the Environment** Office of Research and Development, Environmental Studies Division, EPA Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–010 $7.05 **NTIS-PB** 238 062 $10.25
600/5–73–011	1HA097	**Development of a Decision Room For Environmental Studies** BY J. G. Moore, Data Metric Corporation McLean, VA **ORDER FROM: NTIS-PB** 231 864/AS $4.25
600/5–73–012a	1HA098	**Studies in Environment – Volume I – Summary Report** BY M. Felder, Homer Hoyt Institute Washington, DC BY L. Llewellyn, National Bureau of Standards Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–012a $1.45 **NTIS-PB** 240 786/AS $5.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/5–73–012b	1HA098	**Studies in Environment – Volume II – Quality of Life** BY K. E. Horsnback, J. Guttman, H. L. Himmelstein, A. Rappaport, and R. Reyna, Homer Hoyt Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–012b **$1.85 NTIS-PB** 240 787/AS **$5.25**
600/5–73–012c	1HA098	**Studies in Environment – Volume III – Pollution and the Municipality** BY P. C. Cooper, S. J. Kursch, J. R. Wakeland, M. Van Winkle, and M. A. Zoller, Homer Hoyt Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–012c **$1.55 NTIS-PB** 240 788/AS **$5.25**
600/5–73–012d	1HA098	**Studies in Environment – Volume IV – Consumption Differentials and the Environment** BY M. B. Olsen, E. E. Bickelhaupt, D. H. Grimsley, C. S. Lewis, and P. Scott, Homer Hoyt Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–012d **$0.95 NTIS-PB** 240 789/AS **$4.25**
600/5–73–012e	1HA098	**Studies in Environment – Volume V – Outdoor Recreation and the Environment** BY B. Kimmelstein, K. Bildstein, P. Bujak, W. Horton, and M. Savino, Homer Hoyt Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–012e **$1.40 NTIS-PB** 240 790/AS **$4.75**
600/5–73–013	1HA096	**State of the System (SOS) Model** BY E. R. Williams, Chase, Rosen and Wallace, Inc. Alexandria, VA **ORDER FROM: GPO-**EP1.23/3:600/5–73–013 **$3.45 NTIS-PB** 232 941/AS **$10.00**
600/5–73–014	1HA094	**Enforcement Economics in Air Pollution Control** BY P. B. Downing, Virginia Polytechnic Institute Blacksburg, VA BY W. D. Watson Jr., Washington Environmental Research Center, Implementation Research Division, EPA Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–73–014 **$1.50 NTIS-PB** 240 963/AS **$5.25**
600/5–73–015	1HA098	**Promoting Environmental Quality Through Urban Planning and Control** BY E. J. Kaiser, K. Elfers, S. Cohn, P. A. Reichert, M. M. Hufschmidt, and R. Stanland, North Carolina, University of Chapel Hill, NC **ORDER FROM: GPO-**EP1.23/3:600/5–73–015 **$5.05 NTIS-PB** 227 090 **$11.50**
600/5–73–016	1HA097	**Environmental Management and Local Government** BY S. Carter, M. Frost, C. Rubin, and L. Sumark, International City Management Association Washington, DC **ORDER FROM: NTIS-PB** 232 955/AS **$11.00**
600/5–73–017		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
600/5–74–001	1HA096	**Simulation City Approach for Preparation of Urban Area Data Bases** BY A. Lemer, Alan M. Voorhees and Associates McLean, VA **ORDER FROM: GPO-**EP1.23/3:600/5–74–001 **$1.25 NTIS-PB** 244 953/AS **$4.75**
600/5–74–002	1HA095	**Review of Environmental Impact Assessment Methodologies** BY M. Warner, and E. H. Preston, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: GPO-**EP1.23/3:600/5–74–002 **$0.70 NTIS-PB** 236 609/AS
600/5–74–003	1HA091	**Cost Evaluation of Alternative Air Quality Strategies** BY S. E. Atkinson, and D. H. Lewis, Washington Environmental Research Center, Implementation Research Division, EPA Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–003 **$1.05 NTIS-PB** 245 129/AS **$4.25**
600/5–74–004	1BA030	**Design of Cost-Effective Water Quality Surveillance Systems** BY C. V. Beckers, and S. G. Chamberlain, Raytheon Company Portsmouth, RI **ORDER FROM: GPO-**EP1.23/3:600/5–74–004 **$4.05 NTIS-PB** 232 979/AS
600/5–74–005	1HA095	**Development of Predictions of Future Pollution Problems** BY J. E. Flinn, and R. S. Reiners, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: GPO-**EP1.23/3:600/5–74–005 **$2.40 NTIS-PB** 245 127/AS **$7.25**
600/5–74–006	1HA095	**Environmental Impact Requirements in the States: NEPA's Offspring** BY T. C. Trzyna, California Public Affairs, Center for Claremont, CA **ORDER FROM: NTIS-PB** 234 384/AS **$5.00**
600/5–74–007	1HA091	**Feasibility of Emission Standards Based on Particle Size** BY L. J. Shannon, P. G. Gorman, and W. R. Park, Midwest Research Institute Kansas City, MO **ORDER FROM: GPO-**EP1.23/3:600/5–74–007 **$2.50 NTIS-PB** 236 160/AS **$5.00**
600/5–74–008	1HA096	**Guide to Models in Governmental Planning and Operations** BY P. J. Gass, and R. L. Sisson, Mathematica, Inc. Bethesda, MD **ORDER FROM: NTIS-PB** 245 269/AS **$10.50**
600/5–74–009	1HA093	**Cost-Effectiveness of a Uniform National Sulfur Emissions Tax** BY T. H. Bingham, P. C. Cooley, M. E. Fogel, and D. R. Johnston, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: GPO-**EP1.23/3:600/5–74–009 **$2.25 NTIS-PB** 236 586/AS
600/5–74–010	1BA030	**Comprehensive Management of Phosphorus Water Pollution** BY D. B. Porcella, A. B. Bishop, and J. C. Andersen, Utah State University Logan, UT **ORDER FROM: GPO-**EP1.23/3:600/5–74–010 **$4.05 NTIS-PB** 232 958/AS

BIBLIOGRAPHIC SECTION

REPORT NO.

600/5–74–011 1HA094 **Environment: A Bibliography of Social Science and Related Literature** BY D. E. Morrison, K. E. Hornsback, and W. K. Warner. Michigan State University East Lansing, MI **ORDER FROM: GPO-**EP1.23/3:600/5–74–011 $7.45 **NTIS-PB** 237 948/AS $10.45

600/5–74–012 1AA004 **Economic Damages of Air Pollution** BY T. E. Waddell, Washington Environmental Research Center, EPA Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–012 $2.35 **NTIS-PB** 235 701/As $3.95

600/5–74–013 1BA030 **Water Quality Model for a Conjunctive Surface – Groundwater System** BY A. I. Perez, W. C. Huber, J. P. Heaney, and E. E. Pyatt, Florida, University of Gainesville, FL **ORDER FROM: GPO-**EP1.23/3:600/5–74–013 $3.30 **NTIS-PB** 238 491/AS $5.80

600/5–74–014 1BA030 **Estimating Water Quality Benefits** BY D. L. Jordening, Development Planning and Research Associates, Inc. Manhattan, KS **ORDER FROM: GPO-**EP1.23/3:600/5–74–014 $1.50 **NTIS-PB** 245 071/AS $4.75

600/5–74–015 1HA095 **Use of Environmental Analyses on Wastewater Facilities by Local Government** BY J. C. Fensterstock, and D. M. Speaker, Teknekron, Inc. Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–015 $2.70 **NTIS-PB** 237 515/AS $7.00

600/5–74–016 1HA095 **Assessment Methodology for the Environmental Impact of Water Resource Projects** BY M. Warner, J. Moore, S. Chatterjee, D. Cooper, C. Ifeader, W. Lawhon, and R. Reimers, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: GPO-**EP1.23/3:600/5–74–016 $3.00 **NTIS-PB** 240 002/AS $7.50

600/5–74–017 1HA094 **Outpatient Medical Costs Related to Air Pollution in the Portland, Oregon Area** BY J. A. Jaksch, Washington Environmental Research Center, EPA Washington, DC BY H. H. Stoevener, Oregon State University Corvallis, OR **ORDER FROM: GPO-**EP1.23/3:600/5–74–017 $2.00 **NTIS-PB** 237 846/AS $4.00

600/5–74–018 1HA093 **Crop Insurance and Information Services to Control Use of Pesticides** BY J. A. Myranowski, U. F. Ernst, and F. H. Cummings, ABT Associates, Inc. Cambridge, MA **ORDER FROM: GPO-**EP1.23/3:600/5–74–018 $1.55 **NTIS-PB** 238 356/AS $3.55

600/5–74–019 1HA095 **Influences of Wastewater Management on Land Use: Tahoe Basin 1950–1972** BY J. Pepper, and R. Jorgensen, California, University of Santa Cruz, CA **ORDER FROM: GPO-**EP1.23/3:600/5–74–019 $2.50 **NTIS-PB** 240 247/AS $7.00

600/5–74–020 1HA098 **Integrated Multi-media Pollution Model** BY I. Paik, J. Harrington, and S. W. McElroy, Georgetown University Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–020 $3.30 **NTIS-PB** 238 059/AS $5.80

600/5–74–021 1HA098 **Carrying Capacity in Regional Environmental Management** BY A. B. Bishop, H. H. Fullerton, M. McKee, and M. D. Chambers, Utah State University Logan, UT **ORDER FROM: GPO-**EP1.23/3:600/5–74–021 $2.55 **NTIS-PB** 238 080 $7.00

600/5–74–022 1BA030 **Demonstration of a State Water Quality Management Information System** Commonwealth of Pennsylvania Harrisburg, PA **ORDER FROM: GPO-**EP1.23/3:600/5–74–022 $2.05 **NTIS-PB** 237 282/AS

600/5–74–023 1HA095 **California Environmental Quality Act: Innovation in State and Local Decision making** BY T. C. Trzyna, and A. Jokela, California Public Affairs, Center for Claremont, CA **ORDER FROM: GPO-**EP1.23/3:600/5–74–023 $2.00 **NTIS-PB** 240 125/AS $5.75

600/5–74–024 1HA098 **Regional Governmental Arrangements in Metropolitan Areas: Nine Case Studies** BY C. J. Hein, J. M. Keys, and G. M. Robbins, Institute for Community Studies Kansas City, MO **ORDER FROM: GPO-**EP1.23/3:600/5–74–024 $3.15 **NTIS-PB** 237 350/AS $5.65

600/5–74–025 1DA315 **Used Oil Law in the U.S. and Europe** BY W. A. Irwin, and R. A. Liroff, Environmental Law Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–025 $3.65 **NTIS-PB** 239 449/AS $6.15

600/5–74–026 1DA315 **Economic Disincentives for Pollution Control: Legal Political and Administrative Dimensions** BY W. A. Irwin, and R. A. Liroff, Environmental Law Institute Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5–74–026 $2.35 **NTIS-PB** 239 340/AS $5.85

600/5–74–027 1HA096 **Medal Cities** BY G. Pidot, and J. Sommer, Dartmouth College Hanover, NH **ORDER FROM: GPO-**EP1.23/3:600/5–74–027 $1.25 **NTIS-PB** 239 719/AS $4.25

600/5–74–028 1BA030 **Bibliography of Water Pollution Control Benefits and Costs** BY S. G. Unger, and D. L. Jordening, Development Planning and Research Associates, Inc. Manhattan, KS **ORDER FROM: GPO-**EP1.23/3:600/5–74–028 $2.55 **NTIS-PB** 239 424/AS $5.05

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/5-74-029	1HA093	**Evaluation of Adjustment Assistance Program with Application for Pollution Control** BY A. M. Freeman III, Bowdoin College Brunswick, ME **ORDER FROM: GPO-**EP1.23/3:600/5-74-029 $1.45 **NTIS-PB** 239 423/AS $3.45
600/5-74-030	1BA030	**Evaluation of Marketable Effluent Permit Systems** BY R. J. DeLucia, Meta Systems, Inc. Cambridge, MA **ORDER FROM: GPO-**EP1.23/3:600/5-74-030 $4.15 **NTIS-PB** 239 418/AS $7.15
600/5-74-031	1BA030	**Analysis of Cost Sharing Programs for Pollution Abatement of Municipal Wastewater** BY H. E. Marshall, and R. T. Ruegg, National Bureau of Standards Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5-74-031 $2.10 **NTIS-PB** 239 420/AS $4.60
600/5-74-032	1DA315	**Waste Automotive Lubricating Oil Reuse as a Fuel** BY S. Chansky, J. Carroll, B. Kincannon, J. Sahagian, and N. Surprenant, GCA Corporation Bedford, MA **ORDER FROM: GPO-**EP1.23/3:600/5-74-032 $2.85 **NTIS-PB** 241 357 $7.25
600/5-74-033	1HA093	**Economic and Environmental Benefits from Improving Electrical Rate Structures** BY M. Shareskin, Jack Faucett Company Chevy Chase, MD **ORDER FROM: GPO-**EP1.23/3:600/5-74-033 $2.55 **NTIS-PB** 239 451/AS $5.05
600/5-75-001	1BA030	**Evaluation of Alternative Methods For Financing Municipal Waste Treatment Works** BY R. J. DeLucia, L. M. Koppel, D. F. Luecke, S. J. Robinson, P. H. Schafer, D. V. Smith, and J. J. Wagner, Meta Systems, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 241 045/AS $7.25
600/5-75-002	1HA095	**Secondary Impact of Transportation and Wastewater Investments: Review and Bibliography --- Abstracted 600/9-75-001a** --BY S. B. Bascom, K. G. Cooper, M. P. Howell, A. C. Makrides, and F. T. Rabe, Environmental Impact Center Newton, MA **ORDER FROM: NTIS-PB** 246 084/AS $8.75
600/5-75-003	1HA098	**Land Use Forms and the Environment – An Executive Summary --- Abstracted 600/9-75-001a** --BY B. J. Berry, Chicago, University of Chicago, IL **ORDER FROM: NTIS-PB** 241 093/AS $3.75
600/5-75-004	1BA030	**Analysis of Nonpoint-Source Pollutants in the Missouri Basin Region --- Abstracted 600/9-75-001a** --BY A. D. McElroy, F. Y. Chin, and A. Aleti, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 245 896/AS $7.00
600/5-75-005	1HA098	**Performance Controls for Sensitive Lands: A Practical Guide For Local Administrators --- Abstracted 600/9-75-001b** --BY C. Thurow, W. Toner, and D. Erley, American Society of Planning Officials Chicago, IL **ORDER FROM: NTIS-PB** 245 177/AS $12.50
600/5-75-006	1BA030	**Environmental Base and Management Study – Atchafalaya Basin, Louisiana --- Abstracted 600/9-75-001b** --BY S. M. Gagliano, and J. L. Van Beek, Louisiana State University Baton Rouge, LA **ORDER FROM:** PB No. Pending
600/5-75-007	1HA093	**Financial Incentives and Pollution Control: A Case Study --- Abstracted 600/9-75-001b** --BY T. A. Ferrar, A. B. Brownstein, J. D. Simpson, and S. Streiter, Pennsylvania State University University Park, PA **ORDER FROM: NTIS-PB** 241 479 $4.25
600/5-75-008	1HA098	**Land Use Decision Methodology for Environmental Control --- Abstracted 600/9-75-001b** --BY K. Wickersham, P. P. Hansen, and A. G. Melcher, Rocky Mountain Center on Environment Denver, CO **ORDER FROM: NTIS-PB** 244 239/AS $7.00
600/5-75-009	1HA098	**Land Use and the Environment: An Anthology of Readings --- Abstracted 600/9-75-001d** --BY V. Curtis, American Society of Planning Officials Chicago, IL **ORDER FROM: NTIS-PB** 225 521/AS $7.00
600/5-75-010	1DB314	**Measuring External Effects of Solid Waste Management --- Abstracted 600/9-75-001b** --BY W. Ramm, R. Schmalensee, R. Ramanathan, and D. Smallwood, Institute for Policy Analysis La Jolla, CA **ORDER FROM: NTIS-PB** 243 407/AS $11.25
600/5-75-011	1HA098	**Quality of Life Concept – A Potential New Tool For DecisionMakers** BY J. Gerba, Environmental Studies Division, EPA Washington, DC BY E. Bartholomew, Booz-Allen Public Administration Services, Inc. Washington, DC **ORDER FROM: GPO-**EP1.23/3:600/5-75-011 $7.00 **NTIS-PB** 225 089/2 $10.25
600/5-75-012	1HA098	**Minimum Standards For Quality of Life --- Abstracted 600/9-75-001c** --BY O. W. Markley, and M. D. Badgley, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 244 808/AS $9.25
600/5-75-013	1HA095	**Secondary Impacts of Transportation and Wastewater Investments: Research Results --- Abstracted 600/9-75-001c** --BY S. E. Bascom, K. G. Cooper, M. P. Howell, A. C. Makrides, and F. T. Rabes, Environmental Impact Center Newton, MA **ORDER FROM: NTIS-PB** 246 085/AS $7.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/5–75–014	1DA312	**Development of an Economic Analytical Framework for Solid Waste Policy Analysis --- Abstracted 600/9–75–001d** --BY J. Holland, and J. E. Jacobsen, Environmental Dynamics, Inc. Los Angeles, CA **ORDER FROM: NTIS-PB** 244 705/AS $5.75
600/5–75–015	1HC619	**Quantitative Method for Effluent Compliance Monitoring Resource Allocation — Abstracted 600/9–75–001c** --BY A. I. Cohen, Y. Bar-Shalom, W. Winkler, and G. P. Grimsrud, Systems Control, Inc. Palo Alto, CA **ORDER FROM: NTIS-PB** 245 411/AS $8.50
600/5–75–016	1HA098	**Quality of Life Indicators in U.S. Metropolitan Areas, 1970: A Comprehensive Assessment --- Abstracted 600/9–75–001d** --BY B. C. Liu, Midwest Research Institute Kansas City, MO **ORDER FROM: GPO** S/N 055–000–00145–6 $7.70 **NTIS-PB** 245 267/AS $9.25
600/5–75–017	1HA097	**Environmental Indices for the Los Angeles Database --- Abstracted 600/9–75–001d** --BY D. G. Malcolm, J. M. Hemphill, J. E. Gessford, P. Hanson, D. MacDonald, C. Avery, and M. J. Epstein, California State University Los Angeles, CA **ORDER FROM: NTIS-PB** 245 281/AS $7.00
600/5–75–018	1HA098	**Environmental Management in the Malibu Watershed: Institutional Framework — Abstracted 600/9–75–001d** --BY W. D. Conn, California, University of Los Angeles, CA **ORDER FROM: NTIS-PB** 248 645/AS $5.50
600/5–75–019	1DA312	**Economic Evaluation of Technical Systems for Scrap Tire Recycling** BY H. C. Goddard, Municipal Environmental Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 249 197/AS $4.00
600/5–76–001	EHA547	**FIRST YEAR WORK PLAN for a Technology Assessment of Western Energy Resource Development** BY I. L. White, Oklahoma, University of Norman, OK BY F. S. LaGrone, Radian Corporation Austin, TX **ORDER FROM:** Pending
600/5–76–002	1HA094	**Economic Welfare Impacts of Urban Noise** BY R. Thorpe, and T. Holmes, QEI, Inc. Bedford, MA **ORDER FROM:** Pending
600/6–75–001	1AA001	**Scientific and Technical Assessment Report on Particulate Polycyclic Organic Matter (PPOM)** Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 241 799 $4.75
600/6–75–002	1AA001	**Scientific and Technical Assessment Report on Manganese** Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 291/AS $4.25
600/6–75–003	1AA001	**Scientific and Technical Assessment Report on Cadmium --- Abstracted 600/9–75–001d** --Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 246 820/AS $4.50
600/6–75–004	1AA001	**Scientific and Technical Assessment Report on Vinyl Chloride and Polyvinyl Chloride** Special Studies Staff, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 249 461/AS $5.50
600/9–74–001	1RW103	**Indexed Bibliography of Office of Research and Development Reports** OR&D, Publications Staff, EPA Washington, DC **ORDER FROM:** (Superseded by Current Bibliography)
600/9–74–002	1RW103	**Indexed Bibliography of Office of Research and Development Reports – Updated to January 1975 --- Abstracted 600/9–75–001a** --OR&D, Publications Staff, EPA Washington, DC **ORDER FROM:** OR&D, Publications Staff, EPA, Washington, DC 20460
600/9–75–001a	1RW103	**OR&D Publications Summary – March 1975** OR&D, Publications Staff, EPA Washington, DC **ORDER FROM: NTIS-PB** 241 782 $5.75
600/9–75–001b	1RW103	**OR&D Publications Summary – June 1975** OR&D, Publications Staff, EPA Washington, DC **ORDER FROM:** PB No. Pending
600/9–75–001c	1RW103	**OR&D Publications Summary – September 1975** OR&D, Technical Information Division, EPA Washington, DC **ORDER FROM: NTIS-PB** 247 850/AS $6.75
600/9–75–001d	1RW103	**OR&D Publications Summary – December 1975** OR&D, Technical Information Division, EPA Washington, DC **ORDER FROM:** Pending
600/9–75–002	1RW103	**OR&D ADP Workshop Proceedings No. 1** BY D. Swink, Office of Research and Development, EPA Washington, DC **ORDER FROM: NTIS-PB** 241 150/AS $9.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
600/9-75-003	1RW103	**Scientific Seminar on Automotive Pollutants** Office of Environmental Sciences, EPA Washington, DC **ORDER FROM:** Wiser, Herbert L. 202-755-0449
600/9-75-004	1RW103	**Proceedings of First US/USSR Symposium on Comprehensive Analysis of the Environment** Office of Research and Development, EPA Washington, DC **ORDER FROM:** Pending
600/9-75-005	1BB466	**Agriculture and Clean Water – Proceedings of a Conference on Agricultural Water Pollution Control --- Abstracted 600/9-75-001d** --BY C. C. Chappelow, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 246 113/AS $6.25
600/9-75-006	1HA323	**WATER RESOURCES: Utilization and Conservation in the Environment --- Abstracted 600/9-75-001d** --BY M. C. Blount, Fort Valley State College Fort Valley, GA **ORDER FROM: NTIS-PB** 247 612/AS $2.25
600/9-75-007	1BB033	**Research Needs for the Potable Reuse of Municipal Wastewater** BY K. D. Linstedt, E. R. Bennet, and J. N. English, Colorado, University of Boulder, CO **ORDER FROM: NTIS-PB** 249 138/AS $7.75
600/9-75-008	1AA002	**Report on the Problem of Halogenated Air Pollutants and Stratospheric Ozone --- Abstracted 600/9-75-001d** --Environmental Science Research Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 247 699/AS $4.50
600/9-76-001	1RW103	**Handbook for ORD Report Specifications** BY Office of Research and Development, EPA Cincinnati, OH **ORDER FROM:** Pending
600/9-76-002	1RW103	**Publications Bibliography – 1975** Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/9-76-003	1RW103	**Environmental Research Outlook, FY 1976 through 1980; Report to Congress** Office of Research and Development, EPA Washington, DC **ORDER FROM: NTIS-PB** 250 523/AS $6.75
600/9-76-004	1BA064	**Gas and Leachate from Landfills: Formation, Collection, and Treatment** BY E. J. Genetelli, and J. Cirello, Rutgers University New Brunswick, NJ **ORDER FROM: NTIS-PB** 251 161/AS $7.50
600/9-76-005	1HA327	**Quality Assurance Handbook for Air Pollution Measurement Systems. Volume I. Principles** Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC **ORDER FROM:** Pending
600/9-76-006	EHB624	**Meeting Report: Advanced Fossil Fuels Sector Group, Research Triangle Park, 13 November 1975** Stanford Research Institute Arlington, VA **ORDER FROM: NTIS-PB** 250 686/AS $4.00
650/1-73-001	1EA078	**Training Manual for Teratology** BY K. D. Courtney, and N. Chernoff, Pesticides and Toxic Substances Effects Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 237 370 $3.75
650/1-73-002	1AA007	**Interactions of Various Air Pollutants on Causation of Pulmonary Disease** BY J. D. Fenters, and R. Z. Maigetter, IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 230 933/AS $4.25
650/1-73-003	1AA005	**Investigation of the Effects of Carbon Monoxide on Humans in the Driving Task** Ohio State University Research Foundation Columbus, OH **ORDER FROM: NTIS-PB** 224 646 $5.25
650/1-73-004	1AA005	**Normal Carboxyhemoglobin Levels of Blood Donors in the United States** BY R. D. Stewart, Medical College of Wisconsin, Department of Environmental Medicine Milwaukee, WI **ORDER FROM: GPO**-EP1.23/4:650/1-73-004 $3.10 **Pending**
650/1-74-001	1AA005	**Use of Panelist as Substitutes for Taxicab Drivers in Carbon Monoxide Exposure** BY A. W. Hoover, and R. M. Albrecht, Columbia University, Division of Environmental Health Sciences New York City, NY **ORDER FROM: NTIS-PB** 228 783 $3.75
650/1-74-002	1EA078	**Metabolism of Carbamate Insecticides** BY U. W. Dorough, Kentucky, University of, Department of Entomology Lexington, KY **ORDER FROM: NTIS-PB** 231 596/AS $8.50
650/1-74-003	1AA002	**Development of Analytic Techniques to Measure Human Exposure to Fuel Additives** BY D. E. Johnson, J. B. Tillery, J. M. Hosenfeld, and J. W. Register, Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 232 124/AS $6.25
650/1-74-004	1AA005	**Health Consequences of Sulfur Oxides: A Report from CHESS,1970-1971** BY E. Caldwell, Human Studies Laboratory, EPA Research Triangle Park, NC **ORDER FROM: GPO** EP 1.2:SU5/2/970-71 $3.10 **NTIS-PB** 234 920 $11.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/1-74-005	1AA005	**Effect of Carbon Monoxide on Time Perception** Medical College of Wisconsin, Department of Environmental Medicine Milwaukee, WI **ORDER FROM: NTIS-PB** 232 544/AS $4.25
650/1-74-006	1AA005	**Study of the Effects of Low Levels of Carbon Monoxide Upon Humans Performing Driving Tasks** Harvard University, Guggenheim Center for Aerospace Health and Safety, Boston, MA **ORDER FROM: NTIS-PB** 233 894 $5.25
650/1-74-007	1AA005	**Epidemiology of Chronic Respiratory Disease: A Literature Review** Michigan, University of Ann Arbor, MI **ORDER FROM: NTIS-PB** 237 375 $5.75
650/1-74-008	1AA002	**Literature Search and Analysis of Information Regarding Sources, Uses, Production, Consumption, Reported Medical Cases and Toxicology of Platinum and Palladium** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 238 546/AS $3.75
650/1-74-009	1EA078	**Pesticides Epidemiological Field Studies** Miami, University of, School of Medicine Miami, FL **ORDER FROM: NTIS-PB** 237 347 $3.75
650/1-74-010	1AA005	**Reactivity of Polynuclear Aromatic Hydrocarbons with O_2 and NO in the Presence of Light** New York University, Chemistry Department New York, NY **ORDER FROM: NTIS-PB** 238 294/AS $3.75
650/1-74-011	1EA078	**Actions of Pesticides and Other Drugs on the Male Reproductive System** West Virginia University Medical Center Morgantown, WV **ORDER FROM: NTIS-PB** 237 381 $3.75
650/1-74-012	1EA078	**Study of the Ecology of Pesticides** Miami, University of Coral Gables, FL **ORDER FROM: NTIS-PB** 240 173/AS $4.25
650/1-74-013	1AA005	**Use of Leucocyte Metabolism as a Health Effects Indicator** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 240 174/AS $5.25
650/1-75-001	1AA005	**Health and Annoyance Impact of Odor Pollution** California Department of Health Berkeley, CA **ORDER FROM:** Pending
650/1-75-002	1EA078	**Occupational and Environmental Pesticide Exposure Study in South Florida** Miami, University of Miami, FL **ORDER FROM: NTIS-PB** 243 826/AS $4.75
650/1-75-003	1AA005	**Lead: Environmental Sources and Red Cell Toxicity in Urban Children** Nebraska, University of Omaha, NB **ORDER FROM: NTIS-PB** 249 061/AS $5.00
650/1-75-004	1EA078	**Fluorescence Immunoassay Technique for Detecting Organic Environmental Contaminants** IRT Corporation San Diego, CA **ORDER FROM: NTIS-PB** 243 397/AS $4.25
650/1-75-005	1AA005	**Air Pollution Exposure and Immunoglobulin Levels** Meloy Laboratories, Inc. Springfield, VA **ORDER FROM: NTIS-PB** 242 138 $3.25
650/2-73-001	1AA010	**Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1972)** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 221 603 $4.75
650/2-73-002	1AA010	**Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1973)** Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Air Pollution Technical Information Center, RTP, NC 27711
650/2-73-003	1AA010	**Absorption of SO_2 by Alkaline Solutions in Venturi Scrubber Systems** BY C. Y. Wen, and S. Uchida, West Virginia University, Department of Chemical Engineering Morgantown, WV **ORDER FROM: NTIS-PB** 224 202/AS $4.75
650/2-73-004	1AB013	**Fate of Trace Constituents of Coal During Gasification** Institute of Gas Technology, IIT Center Chicago, IL **ORDER FROM: NTIS-PB** 223 001/AS $3.75
650/2-73-005	1AB014	**Program for Reduction of NO_x from Tangential Coal-Fired Boilers – Phase 1** BY C. E. Blakeslee, and A. P. Selker, Combustion Engineering, Inc. Windsor, CT **ORDER FROM: NTIS-PB** 226 547/AS $7.00
650/2-73-005a	1AB014	**Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase II** BY A. P. Selker, Combustion Engineering, Inc. Windsor, CT **ORDER FROM: NTIS-PB** 245 162/AS $5.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-73-005b	1AB014	**Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase IIa – NO_x** BY A. P. Selker, Combustion Engineering, Inc. Windsor, CT **ORDER FROM: NTIS-PB** 246 889/AS $4.00
650/2-73-006	1AA010	**Development of X-Ray Fluorescence Spectroscopy in Element Analysis of Particulate Matter Phase II: Evaluation of Commerical Multiple Crystal Spectrometer Instruments** BY L. S. Birks, and J. V. Gilfrich, Naval Research Laboratory Washington, DC **ORDER FROM: NTIS-PB** 762 061 $3.25
650/2-73-007	1AA010	**Evaluation and Modification of Fluoride Sampling and Analytical Methods** BY R. S. Sholtes, E. U. Meadows, and J. B. Koogler, Environmental Science and Engineering, Inc. Gainesville, FL **ORDER FROM: NTIS-PB** 230 954/AS $5.75
650/2-73-008	1AA010	**Development of a Supplementary Emission Measurements Monitoring System** Thunder Scientific Corporation Albuquerque, NM **ORDER FROM: NTIS-PB** 232 442/AS $3.75
650/2-73-009	1AA010	**Development and Fabrication of Mass Emission Data and Control System for the Stationary Source Simulator** BY P Dimouro, R. Reiner, and H. Dodds, Systems Technology Associates Falls Church, VA **ORDER FROM: NTIS-PB** 232 013/AS $6.25
650/2-73-010	1AA010	**Development of Instrumentation for Measurement of Stationary Source Aldehyde Organic Acid and Amine Emissions** BY J. D. Bode, Bendix Research Laboratories Southfield, MI **ORDER FROM: NTIS-PB** 230 884/AS $4.75
650/2-73-011	1AA010	**Direct Determination of Metals in Air** BY J. W. Robinson, Louisiana State University, Department of Chemistry Baton Rouge, LA **ORDER FROM: NTIS-PB** 226 774/AS $4.25
650/2-73-012	1AB013	**Properties of Ammonium Sulfate, Ammonium, and Sulfur Dioxide Solutions in Ammonia Scrubbing Processes** BY J. E. Boone, and J. H. Turner, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 223 000 $3.75
650/2-73-013	1AB013	**EPA Alkali Scrubbing Test Facility: Sodium Carbonate and Limestone Test Results** BY M. Epstein, L. Sybert, and I Raben, Bechtel Corporation San Francisco, CA **ORDER FROM: NTIS-PB** 225 041/3AS $15.00
650/2-73-014	1AB014	**Investigation of Surface Combustion Concepts for NO_x Control in Utility Boilers and Stationary Gas Turbines** BY W. U. Roessler, E. K. Weinberg, J. A. Drake, U. M. White, and Urban Programs Division El Segundo, CA **ORDER FROM: NTIS-PB** 224 424/AS $5.25
650/2-73-015	1AB014	**Equimolar NO_2 Absorption into Magnesia Slurry – A Pilot Feasibility Study** Babcock and Wilson Company Alliance, OH **ORDER FROM: NTIS-PB** 223 579/AS $5.25
650/2-73-016	1AA010	**Development of an Instrumental Monitoring Method for Measurement of Asbestos Concentrations in or Near Sources** BY A. Pattnaik, and J. D. Meakin, Franklin Institute Research Laboratories Philadelphia, PA **ORDER FROM: NTIS-PB** 226 471/AS $4.25
650/2-73-017	1AB013	**Atmospheric Emissions From the Petroleum Refining Industry** BY W. White, National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 225 040/5AS $4.25
650/2-73-018	1AB014	**Catalytic Combustion, a Pollution-Free Means of Energy Conversion** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 223 002 $3.50
650/2-73-019a	1AB013	**Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume I** Tennessee Valley Authority Chattanooga, TN **ORDER FROM: NTIS-PB** 228 447/AS $7.50
650/2-73-019b	1AB013	**Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume II – Appendices A through H** Tennessee Valley Authority Chattanooga, TN **ORDER FROM: NTIS-PB** 230 384/AS $9.50
650/2-73-019c	1AB013	**Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume III – Appendices I through L** Tennessee Valley Authority Chattanooga, TN **ORDER FROM: NTIS-PB** 230 385/AS $9.50
650/2-73-020	1AB013	**Catalytic Oxidation of Sulfur Dioxide Using Isotopic Tracers** BY J. Happel, and M. Hnatow, New York University, School of Engineering New York City, NY **ORDER FROM: NTIS-PB** 224 305/AS $3.00
650/2-73-021	1AB014	**Proceeding, Coal Combustion Seminar, June 19–20, 1973** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 224 210/AS $7.00
650/2-73-022	1AA010	**State-of-the-Art: 1971 Instrumentation for Measurement of Particulate Emissions from Combustion Sources** BY G. J. Sem, and J. A. Borgos, Thermo-Systems, Inc. St. Paul, MN **ORDER FROM: NTIS-PB** 231 919/AS $5.25

BIBLIOGRAPHIC SECTION

REPORT NO.	
650/2-73-023	1AA010 **Manual Methods for Sampling and Analysis of Particulate Emissions From Municipal Incinerators** BY J. T. Funkhouser, E. T. Peters, P. L. Levins, A. Doyle, P. Giever, and J. McCoy, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 238 476/AS $8.50
650/2-73-024	1AB013 **Measurement and Characterization of Particles in Wet Scrubbing Process for SO_x Control** Walter C. McCrone Associates, Inc. Chicago, IL **ORDER FROM: NTIS-PB** 225 083/5AS $7.00
650/2-73-025	1AA010 **Application of Odor Technology to Mobil Sources Emission Instrumentation** BY P. L. Levins, and D. A. Kendall, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 228 756 $4.75
650/2-73-026	1AA010 **Remote Sensing of Air Pollution in Urban Areas** BY M. L. Streiff, and C. B. Ludwig, General Dynamics Corporation San Diego, CA **ORDER FROM: NTIS-PB** 230 885/AS $6.25
650/2-73-027	1AA010 **Instrument for Simultaneous Monitoring NO_x and SO_2 in Stationary Sources** BY U. C. Tucker, and J. Chung, Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 231 084/AS $3.75
650/2-73-028	1AB013 **Enclosed Coke Pushing and Quenching System Design Manual** BY D. A. Pengidore, National Steel Corporation, Weirton Steel Division Weirton, WV **ORDER FROM: NTIS-PB** 226 418/AS $4.75
650/2-73-029	1AB014 **Interactions of Stack Gas Sulfur and Nitrogen Oxides on Dry Berkau** BY J. W. Brown, D. W. Pershing, J. U. Wasser, and E. E. Berkau, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 224 208/AS $3.25
650/2-73-030	1AA010 **Instrument to Monitor CH_4, CO and CO_2 in Auto Exhaust** BY D. E. Burch, and J. D. Pembrook, Philco-Ford Corporation, Aeronutronic Division Newport Beach, CA **ORDER FROM: NTIS-PB** 226 438/AS $3.75
650/2-73-031	1AB014 **Effectiveness of Selected Fuel Additives in Controlling Pollution Emissions From Residual Oil-Fired Boilers** BY D. W. Pershing, G. B. Martin, E. E. Berkau, and R. E. Hall, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 225 037/1AS $3.75
650/2-73-032	1AA010 **Development of a High-Purity for High Temperature Particulate Sampling and Analysis** BY A. L. Benson, P. L. Levins, A. A. Massucco, and J. R. Valentine, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 230 886/AS $4.75
650/2-73-033a	1AB014 **Aerodynamic Control of Nitrogen Oxides and Other Pollutants From Fossil Fuel Combustion Volume I – Data Analysis and Summary of Conclusions** BY D. R. Shoffstall, and D. H. Larson, Institute of Gas Technology, IIT Center Chicago, IL **ORDER FROM: NTIS-PB** 229 102/AS $4.75
650/2-73-033b	1AB014 **Aerodynamic Control of Nitrogen Oxides and Other Pollutants from Fossil Fuel Combustion Volume II – Raw Data and Experimental Equipment** BY D. R. Shoffstall, and D. H. Larson, Institute of Gas Technology, IIT Center Chicago, IL **ORDER FROM:** Chemical Systems Lab., NERC, RTP, NC 27711
650/2-73-034	1AA010 **Interferometric Instrumentation For Particle Size Analysis** Arnold Research Organization, Inc. Arnold Air Force Station, TN **ORDER FROM: NTIS-PB** 240 584/AS $4.25
650/2-73-035	1AB012 **Field Measurements of Particle Size Distribution Sizing Devices** BY J. D. McCain, K. M. Cushing, and A. V. Bird Jr., Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 226 292/AS $4.75
650/2-73-036	1AB012 **Feasibility of Flux Force/Condensation Scrubbing for Fine Particulate Collection** BY S. Calvert, J. Goldshmid, D. Leith, and N. Jhaveri, A.P.T,. Inc. Riverside, CA **ORDER FROM: NTIS-PB** 227 307 $6.25
650/2-73-037	1AA010 **Feasibility of a CW Lidar Technique for Measurement of Plume Opacity** BY R. A. Ferguson, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 231 992/AS $5.25
650/2-73-038	1AB013 **Proceedings: Flue Gas Desulfurization Symposium 1973** BY E. L. Plyler, and M. A. Maxwell, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 230 901/AS $29.25
650/2-73-039	1AB013 **Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil—Second Phase** Esso Research and Engineering Company Linden, NJ **ORDER FROM:** Chemical Systems Lab., NERC, RTP, NC 27711
650/2-73-040	1AA010 **Development of Range Squared and Off-Gating Modifications for a Lidar System** General Electric Company, Space Sciences Laboratory Philadelphia, PA **ORDER FROM: NTIS-PB** 228 715 $4.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-73-041	1AB013	**Demetallization of Heavy Residual Oils** BY W. C. Rovesti, and R. H. Wolk, Hydrocarbon Research, Inc. Trenton, NJ **ORDER FROM: NTIS-PB** 227 568 $10.25
650/2-73-041a	1AB013	**Demetallization of Heavy Residual Oils – Phase II** Hydrocarbon Research, Inc. Trenton, NJ **ORDER FROM: NTIS-PB** 241 901/AS $4.25
650/2-73-042	1AB013	**Gasification of Fossil Fuels Under Oxidative, Reductive, and Pyrolytic Conditions** Scientific Research Instruments Corporation Baltimore, MD **ORDER FROM: NTIS-PB** 228 668/AS $7.00
650/2-73-043	1AA008	**Capacity of the Soil as a Natural Sink for Carbon Monoxide** BY R. B. Ingersoll, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 221 641 $3.75
650/2-73-044	1AB013	**Petrograhpic Characteristics and Physical Properties of Marls, Chalks, Shells and Their Calcines Related to Desulfurization of Flue Gases** BY R. D. Harvey, R. R. Frost, and J. Thomas Jr., Illinois State Geological Survey Urbana, IL **ORDER FROM: NTIS-PB** 226 321/AS $5.25
650/2-73-045	1AB014	**Study of Combustor Flow Computations and Comparison with Experiment** BY R. F. Anasoulis, and H. McDonald, United Aircraft Research Laboratories East Hartford, CT **ORDER FROM: NTIS-PB** 230 008/AS $4.75
650/2-73-046	1AB015	**Atmospheric Emissions from the Asphalt Industry** BY L. L. Laster, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 222 372/AS $3.75
650/2-73-047	1AB013	**Absorption of SO_2 into Lime Slurries: Absorption Rates and Kinetics** BY J. E. Vivian, Massachusetts Institute of Technology, Department of Chemical Engineering Cambridge, MA **ORDER FROM: NTIS-PB** 230 936/AS $4.25
650/2-73-048a	1AB013	**Evaluation of the Fluidized-Bed Combustion Process Volume I – Pressurized Fluidized-Bed Combustion Process Development and Evaluation** Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 231 162/AS $10.00
650/2-73-048b	1AB013	**Evaluation of the Fluidized-Bed Combustion Process Volume II – Fluidized Bed Boiler Combined-Cycle Power Plant Development—Volume I Appendices** Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 231 163/AS $8.50
650/2-73-048c	1AB013	**Evaluation of the Fluidized-Bed Combustion Process Volume III – Pressurized Fluidized-Bed Boiler Development Plant Design** Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 232 433/AS $8.75
650/2-73-048d	1AB013	**Evaluation of the Fluidized-Bed Combustion Process Volume IV – Fluidized-Bed Gasification Desulfurization** Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 233 101 $10.00
650/2-73-049	1AB013	**Production of Clean Fuel Gas From Bituminous Coal** Consolidation Coal Company, Incorporated, Research Division Library, PA **ORDER FROM: NTIS-PB** 232 695/AS $8.50
650/2-73-050	1AA010	**Methods for Rapid and Accurate Measurement of Nitrate and Sulfate in Atmospheric Particulates** BY D. Williams, J. Driscoll, C. Curtin, and R. Hebert, Walden Research Division of Abcor, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 230 887/AS $5.25
650/2-73-051	1AB013	**Marketing H_2SO_4 from SO_2 Abatement Sources— The TVA Hypothesis** Tennessee Valley Authority, Office of Agricultural and Development Muscle Shoals, AL **ORDER FROM: NTIS-PB** 231 671/AS $5.25
650/2-73-052	1AA010	**Development of Instrumentation for Quantitative Collection of Total Atmospheric Mercury From Ambient Air-Final Report** BY D. J. Sibbett, and R. C. Wade, Geomet, Inc. Rockville, MD **ORDER FROM: NTIS-PB** 232 300/AS $5.75
650/2-73-053	1AB013	**Proceedings of Third International Conference on Fluidized-Bed Combustion** BY B. Tilton, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 231 977/AS $12.50
650/2-74-001	1AB013	**Regenerative Limestone Process for Fluidized – Bed Coal Combustion and Desulfurization** BY R. C. Hoke, M. S. Nutkis, L. A. Ruth, and H. Shaw, Esso Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 231 374 $5.25
650/2-74-002a	1AB014	**Effects of Design and Operating Variables on NO_x from Coal-Fired Furnaces— Phase I** BY W. J. Armento, Babcock and Wilson Company Alliance, OH **ORDER FROM: NTIS-PB** 229 986/AS $5.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-002b	1AB014	**Effects of Design and Operating Variables on NOx from Coal-Fired Furnaces – Phase II** Babcock and Wilson Company Alliance, OH **ORDER FROM. NTIS-PB** 241 283/AS $6.25
650/2-74-003	1AB014	**Study of Air Pollutant Emissions from Residential Heating Systems** BY R. E. Hall, J. H. Wasser, and E. E. Berkau, Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 229 697/AS $5.25
650/2-74-004	1AB013	**Iron Foundry Cupola Recuperative Emission Control Demonstration — Design Manual** BY J. F. Coursey, Flynn and Emrich Company Baltimore, MD **ORDER FROM: NTIS-PB** 227 875 $4.25
650/2-74-005	1AB015	**Indigester Black Liquor Oxidation for Odor Control in Kraft Pulping** BY W. T. McKean, and J. S. Gratzl, North Carolina State University, Department of Wood and Paper Sciences Raleigh, NC **ORDER FROM: NTIS-PB** 228 692 $5.25
650/2-74-006	1AA010	**Device Collection and Assay of Ambient Gases** BY P. Tsang, Bendix Research Laboratories Southfield, MI **ORDER FROM: NTIS-PB** 231 364/AS $5.25
650/2-74-007	1AB012	**Particulate Emissions from Alfalfa Dehydrating Plants — Control Costs and Effectiveness** BY K. D. Smith, American Dehydrators Association Mission, KS **ORDER FROM: NTIS-PB** 227 448/AS $4.50
650/2-74-008a	1AA010	**Evaluation of Odor Measurement Techniques Volume I – Animal Rendering Industry** BY J. A. Wahl, R. A. Duffee, and W. A. Marrone, Research Corporation of New England Wethersfield, CT **ORDER FROM: NTIS-PB** 228 186/AS $4.75
650/2-74-009a	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification Section I: Koppers-Totzek Process** BY E. M. Magee, C. E. Jahnig, and H. Shaw, Esso Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 231 675/AS $4.25
650/2-74-009b	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: Synthane Process** BY C. D. Kalfadelis, and E. M. Magee, Esso Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 237 113/AS $4.75
650/2-74-009c	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processess Gasification; Section I; Lurgi Process** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 237 694/AS $4.75
650/2-74-009d	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: CO2 Acceptor Process** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 241 141/AS $4.25
650/2-74-009e	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section I. COED Process** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 240 371/AS $4.25
650/2-74-009f	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section 2. SRC Process** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 241 792/AS $4.75
650/2-74-009g	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification: Section 5. BI-GAS Process** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 243 694/AS $4.25
650/2-74-009h	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 6. HYGAS Process** BY C. E. Jahnig, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 247 225/AS $4.50
650/2-74-009i	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 7. U-Gas Process** BY C. E. Jahnig, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 247 226/AS $4.00
650/2-74-009j	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 8. Winkler Process** BY C. E. Jahnig, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 249 846/AS $4.50
650/2-74-009k	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Coal Treatment: Section 1. Meyers Process** BY E. M. Magee, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 246 311/AS $4.00
650/2-74-0091	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes (Analytical Test Plan)** BY C. D. Kalfadelis, E. M. Magee, G. E. Milliman, and T. D. Searl, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 249 845/AS $7.50
650/2-74-009m	1AB013	**Evaluation of Pollution Control in Fossil Fuel Conversion Processes – Liquefaction: Section 3. H-Coal Process** BY C. E. Jahnig, Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 249 847/AS $4.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-010	1AB013	**EPA Alkali Scrubbing Test Facility: Limestone Wet Scrubbing Test Result** BY M. Epstein, L. Sybert, S. C. Wang, and C. C. Leiro, Bechtel Corporation San Francisco, CA **ORDER FROM: NTIS-PB** 232 359/AS $7.50
650/2-74-011	1AB014	**Thermal Radiation Modeling for Pollution Predictions** BY G. R. Whitacre, R. A. McCann, and A. A. Putmann, Battelle Memorial Institute Columbus, OH **ORDER FROM: NTIS-PB** 229 666/AS $4.25
650/2-74-012	1AB013	**Evaluation of the Regenerative Pressurized Fluidized-Bed Combustion Process** BY T. E. Johnson, A. G. Sliger, P. A. Refrancois, and D. O. Moore, M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 233 429/AS $4.75
650/2-74-013	1AA010	**Performance Specifications for Stationary-Source Monitoring Systems for Gases and Visible Emissions** BY J. S. Nader, W. Conner, and F. Joye, National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 230 934/AS $7.00
650/2-74-014	1AA010	**Development of Low Pressure Impactor** Anderson 2000, Inc. Atlanta, GA **ORDER FROM: NTIS-PB** 237 417/AS $4.25
650/2-74-015	1AA010	**Progress in Instrumentation and Techniques for Measurement of Air Pollutants** BY B. Tilton, Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 231 568/AS $3.25
650/2-74-016	1AA010	**Sampling Interface for Quantitative Transport of Aerosols --- Abstracted 600/9-75-001b** --IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 240 434/AS $5.75
650/2-74-017	1AB013	**Kinetic Mechanisms Governing the Fate of Chemically Bound Sulfur and Nitrogen in Combustion** BY C. V. Sternling, and J. O. Wendt, Shell Development Company Emeryville, CA **ORDER FROM: NTIS-PB** 230 895/AS $5.75
650/2-74-018		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
650/2-74-019	1AA003	**Development and Testing of An Air Monitoring System** BY C. E. Decker, J. B. Tommerdahl, and T. M. Royal, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 231 666/AS $7.25
650/2-74-020	1AA010	**Feasibility Study of the Use of Resonance Scattering for the Remote Detection of SO_2** United Aircraft Research Laboratories East Hartford, CT **ORDER FROM:** Pending
650/2-74-021	1AB013	**Efficiencies in Power Generation** Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 234 160/AS $3.75
650/2-74-022	1AB013	**Coke Charging Pollution Control Demonstration** American Iron and Steel Institute New York, NY **ORDER FROM: NTIS-PB** 234 355/AS $9.25
650/2-74-023	1AB014	**Flame Characterization Probes** BY R. C. Kesselring, Rocketdyne, Division of Rockwell International Corporation Canoga Park, CA **ORDER FROM: NTIS-PB** 232 287/AS $7.00
650/2-74-024	1AB013	**Development of Sampling and Analytical Methods of Lime/Limestone Wet Scrubbing Tests** Radian Corporation Austin, TX **ORDER FROM: NTIS-PB** 236 644/AS $7.00
650/2-74-025	1AB013	**Applicability of the Meyers Process of Chemical Desulfurization of Coal: Initial Survey of Fifteen Coals** BY A. A. Lee, J. W. Hamersma, M. L. Kraft, C. A. Flegal, and R. A. Meyers, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 232 083/AS $7.00
650/2-74-025a	1AB013	**Applicability of the Meyers Process for Chemical Desulfurization of Coal: Survey of 35 Coals** BY J. W. Hamersma, and M. L. Kraft, TRW Systems Group Redondo Beach, CA **ORDER FROM:** Pending
650/2-74-026	1AB015	**Investigation of Particulate Emission from Oil-Fired Residential Heating Units** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 237 355/AS $3.75
650/2-74-027	1AB012	**Control Technology for Fine Particulate Emissions** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 236 646/AS $5.75
650/2-74-028	1AB012	**Lone Star Steel Steam-Hydro Air Cleaning System Evaluation** BY J. D. McCain, and W. B. Smith, M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 232 436/AS $3.75
650/2-74-029	1AA010	**Compact Sampling System for Collection of Particulates from Stationary Sources --- Abstracted 600/9-75-001b** --General Electric Company Philadelphia, PA **ORDER FROM: NTIS-PB** 240 398/AS $5.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-030	1AB013	**Interpretative Compilation of EPA Studies Related to Coal Quality and Cleanability** BY L. Hoffman, J. B. Truett, and S. J. Aresco, Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 232 011/AS $8.50
650/2-74-031a	1AB014	**Application of Holographic Methods to the Measurement of Flames and Particulate – Volume I** TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 235 674/AS $3.75
650/2-74-031b	1AB014	**Application of Holographic Methods to the Measurement of Flames and Particulate – Volume II** TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 235 675/AS $4.50
650/2-74-032	1AB014	**Design Trends and Operating Problems in Combustion Modification of Industrial Boilers** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 235 712/AS $5.50
650/2-74-033	1AB013	**Solid Waste Disposal Final Report** Radian Corporation Austin, TX **ORDER FROM: NTIS-PB** 233 144/AS $9.25
650/2-74-034	1AB012	**Optical Measurements of Smoke Particle Size Generated by Electric Arcs** Colorado State University Fort Collins, CO **ORDER FROM:** Pending
650/2-74-035	1AB013	**Evaluation of Equations for Designing Ammoniacal Scrubbers to Remove Sulfur Oxides from Waste Gas** BY L. L. Griffin, National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 232 527 $4.25
650/2-74-036	1AB012	**Braxton Sonic Agglomerator Evaluation** BY R. Dennis, R. Bradway, and R. Cass, GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 234 146/AS $7.25
650/2-74-037a	1AB013	**Disposal of By-products from Non-regenerable Flue Gas Desulfurization Systems: Initial Report** Aerospace Corporation El Segundo, CA **ORDER FROM: NTIS-PB** 237 [illegible]14/AS $9.25
650/2-74-038	1AB014	**Combustion Control of Pollutants from Multiburner Coal-fired System** BY C. McCann, J. Demeter, R. Snedden, and D. Bienstock, U.S. Bureau of Mines Pittsburgh, PA **ORDER FROM: NTIS-PB** 233 037/AS $4.75
650/2-74-039	1AA010	**Evaluation of Instrumentation for Monitoring Total Mercury Emissions from Stationary Sources** Walden Research Division of Abcor, Inc. Walden, MA **ORDER FROM: NTIS-PB** 238 323/AS $5.75
650/2-74-040	1AA010	**Synthesis and Purification of Carcinogenic Polynuclear Aromatic Hydrocarbon Standards** Allied Chemical Corporation Morristown, NJ **ORDER FROM: NTIS-PB** 240 201/AS $4.25
650/2-74-041	1AB013	**Effect of Gas Turbine Efficiency and Fuel Cost on Cost Producing Electric Power** Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 234 159/AS $3.75
650/2-74-042		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
650/2-74-043	1AB012	**Proceedings: Symposium on the Use of Fabric Filters for the Control of Submicron Particulates (April 8–10, 1974, Boston, Ma.)** GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 237 629/AS $9.25
650/2-74-044	1AA010	**Isolation of Hayfever Antigens from Short Ragweed Pollen** Worthington Biochemical Corporation Freehole, NJ **ORDER FROM: NTIS-PB** 237 691/AS $3.25
650/2-74-045	1AB014	**Kinetic Mechanisms of Methane/Air Combustion with Pollutant Formation** Ultrasystems, Inc. Irvine, CA **ORDER FROM: NTIS-PB** 234 149/AS $5.25
650/2-74-046a	1AA010	**Development of Gas Laser System to Measure Trace Gases by Longpath Absorption Techniques: Volume I – Gas Laser System Modification for Ozone Monitoring Final Report** BY S. E. Craig, D. R. Morgan, D. L. Roberts, and L. R. Snowman, General Electric Company Pittsfield, MA **ORDER FROM: NTIS-PB** 236 678/AS $5.75
650/2-74-046b	1AA010	**Development of A Gas Laser System to Measure Trace Gases by Long Path Absorption Techniques: Volume II – Field Evaluation of Gas Laser System for Ozone Monitoring Final Report** BY W. A McClenny, F. W. Baity Jr., R. E. Baumgardner Jr., and R. A. Gray, Chemistry and Physics Laboratory, EPA, Research Triangle Park, NC BY R. J. Gillmeister, and L. R. Snowman, General Electric Company Pittsfield, MA **ORDER FROM: NTIS-PB** 236 679/AS $4.25
650/2-74-047	1AB014	**Design of an Optimum Distillate Oil Burner for Control of Pollutant Emissions** Rocketdyne, Division of Rockwell International Canoga Park, CA **ORDER FROM: NTIS-PB** 236 647/AS $16.50
650/2-74-048	1AB015	**Development of an Approach to Identification of Emerging Technology and Demonstration Opportunities** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 233 646 $8.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-049a	1AB013	**Pilot-Plant Study of an Ammonia Absorption Ammonium Bisulfate Regeneration Process, Topical Report Phases I and II** Tennessee Valley Authority Chattanooga, TN **ORDER FROM: NTIS-PB** 237 171/AS $7.00
650/2-74-050	1AB013	**Measurement of Entrained Liquid Levels in Effluent Gases from Scrubber Demisters** BY L. D. Johnson, and R. M. Statnick, National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 223 739 $3.25
650/2-74-051	1AB014	**Assessment of the Applicability of Automotive Emission Control Technology to Stationary Engines** Aerospace Corporation Los Angeles, CA **ORDER FROM: NTIS-PB** 237 115/AS $10.00
650/2-74-052	1AB013	**Study of Potential Problems and Optimum Opportunities in Retrofitting Industrial Processes to Low and Intermediate Energy Gas from Coal** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 237 116/AS $5.75
650/2-74-053	1AB013	**Particulate Collection Study, EPA/TVA Full-Scale Dry Limestone Injection Tests** Cottrell Environmental Systems, Inc. Division of Research-Cottrell, Inc. Bound Brook, NJ **ORDER FROM:** Pending
650/2-74-054	1AB013	**Occurrence and Distribution of Potentially Volatile Trace Elements in Coal** Illinois State Geological Survey Springfield, IL **ORDER FROM: NTIS-PB** 238 091/AS $4.75
650/2-74-055	1AA010	**Design, Construction, and Testing of a Commercial Prototype Disc Diluter** Monsanto Research Corporation Dayton, OH **ORDER FROM:** Pending
650/2-74-056	1AA003	**Development of an Acetylene Monitor at the PPB Level** Beckman Instruments, Inc. Anaheim, CA **ORDER FROM: NTIS-PB** 238 474/AS $3.75
650/2-74-057	1AB013	**Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion** Argonne National Laboratory Argonne, IL **ORDER FROM: NTIS-PB** 237 366/AS $5.75
650/2-74-058	1AB012	**Applying Fabric Filtration to Coal Fired Industrial BoilersA Preliminary Pilot Scale Investigation** Enviro-Systems and Research, Inc. Roanoke, VA **ORDER FROM: NTIS-PB** 237 117/AS $4.75
650/2-74-058a	1AB012	**Applying Fabric Filtration to Coal Fired Industrial Boilers (A Pilot Scale Investigation)** BY J. D. McKenna, J. C. Mycock, and W. O. Lipscomb, Enviro-Systems and Research, Inc. Roanoke, VA **ORDER FROM: NTIS-PB** 245 186/AS $7.25
650/2-74-059	1AA010	**NO_2 Measuring System** Aerospace Corporation Los Angeles, CA **ORDER FROM: NTIS-PB** 234 255/AS $3.75
650/2-74-060	1AA002	**Development of a Methodology for the Assessment of the Effects of Fuels and Additives on Control Devices** Dow Chemical Company Midland, MI **ORDER FROM:** Pending
650/2-74-061	1AA003	**Determination of Effect of Particulate Exhaust Emissions of Additives and Impurities in Gasoline** Dow Chemical Company Midland, MI **ORDER FROM:** Pending
650/2-74-062	1AB013	**Coke Oven Charging Emission Control Test Program—Volume I** Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 237 628/AS $7.00
650/2-74-062a	1AB013	**Coke Oven Charging Emission Control Test Program – Supplemental Observations** Mitre Corporation McLean, VA **ORDER FROM: NTIS-PB** 237 697/AS $5.25
650/2-74-063	1AB015	**Adserption of Odorous Pollutants by Active Manganese Dioxide** Illinois, University of School of Chemical Sciences Urbana, IL **ORDER FROM: NTIS-PB** 234 458/AS $3.75
650/2-74-064	1AB013	**Instrumental Analyses for Wet Scrubbing Processes** TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 240 616/AS $9.25
650/2-74-065	1AA010	**Advanced Prototype Direct Reading Instrument for Particulate Mass Measurement** Industrial Nucleonics Corporation Columbus, OH **ORDER FROM:** Pending
650/2-74-066	1AB014	**Field Testing: Application of Combustion Modifications to Control NO_x Emissions for Utility Boilers** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 237 344/AS $7.25
650/2-74-067	1AB012	**Design Development and Fabrication of a Prototype High-Vel. Particulate Mass Sampling Train** Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 245 196/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-068	1AA010	**Design, Fabricate, and Demonstrate an Instrument for Assaying Benzo (a) Pryrene** BY E. E. Green, R. J. Wheeler, S. M. Billedeau, and H. P. Burchfiled, Gulf South Research Institute New Iberia, LA **ORDER FROM:** Pending
650/2-74-069	1AA010	**Instrumentation and Methodology for the Assay of Polynuclear Aromatic Hydrocarbons** Exxon Research and Engineering Company Linden, NJ **ORDER FROM:** Pending
650/2-74-070	1AA010	**Effects of Nozzle Design and Sampling Techniques on Aerosol Measurements** ARO Inc. Arnold Air Force Station, TN **ORDER FROM: NTIS-PB** 243 588/AS $4.75
650/2-74-071a	1AB013	**Improved Air Pollution Control for Kraft Recovery Boiler: Modified Recovery Boiler No. 3** Hoerner Waldorf Corporation St. Paul, MN **ORDER FROM: NTIS-PB** 237 627/AS $7.00
650/2-74-071b	1AB013	**Improved Air Pollution Control for a Kraft Recovery Boiler: Recovery Boiler No. 4** Hoerner Waldorf Corporation St. Paul, MN **ORDER FROM: NTIS-PB** 240 442/AS $4.75
650/2-74-072	1AB013	**Sasol Type Process for Gasoline, Methanol, SNG, and Low-BTU Gas from Coal** BY F. K. Chan, M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 237 670/AS $4.75
650/2-74-073	1AB013	**St. Louis/Union Electric Refuse Firing Demonstration Air Pollution Test Support** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 237 630/AS $5.25
650/2-74-074	1AB012	**Influence of Fly Ash Compositional Factors on Electrical Volume Resistivity** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 237 698/AS $3.75
650/2-74-075	1AB012	**Charged Droplet Scrubbing of Submicron Particulate** Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 241 262/AS $8.50
650/2-74-076	1AB013	**Coke Oven Smokeless Pushing System Design Manual** Ford Motor Company Dearborn, MI **ORDER FROM: NTIS-PB** 239 491/AS $4.25
650/2-74-077	1AB013	**Lime/Limestone Scrubbing in a Pilot Dustraxtor – Key West** Engineering Science, Inc. McLean, VA **ORDER FROM: NTIS-PB** 237 622/AS $6.25
650/2-74-078a	1AB014	**Field Testing: Application of Combustion Modifications to Control Pollutant Emissions from Industrial Boilers – Phase I** KVB Engineering, Inc. Tustin, CA **ORDER FROM: NTIS-PB** 238 920/AS $7.25
650/2-74-079	1AB012	**Techniques for Measuring Fly Ash Resistivity** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 244 140/AS $3.75
650/2-74-080	1AB013	**Statistical Concepts for Design Engineers --- Abstracted 600/9-75-001b** --Oklahoma State University Stillwater, OK **ORDER FROM: NTIS-PB** 240 694/AS $6.25
650/2-74-081	1AB012	**Seminar on Electrostatics and Fine Particles — September 1973** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 236 676 $4.75
650/2-74-082	1AB013	**Refinery Catalytic Cracker Reginerator SO$_x$ Control Process Survey** Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 237 756/AS $7.50
650/2-74-083	1AB012	**Dynactor Scrubber Evaluation --- Abstracted 600/9-75-001b** --GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 243 905/AS $5.25
650/2-74-084	1AB015	**Odor Removal from Air by Adsorption on Charcoal** Kansas State University Manhattan, KS **ORDER FROM: NTIS-PB** 236 928/AS $5.25
650/2-74-085a	1AB013	**Control of Sulfur Dioxide Emissions from Copper Smelters: Volume I – Steam Oxidation of Pyritic Copper Concentrates** Battelle Pacific Northwest Laboratories Richland, WA **ORDER FROM: NTIS-PB** 237 748/AS $4.75
650/2-74-085b	1AB013	**Control of Sulfur Dioxide Emissions from Copper Smelters: Volume II – Hydrogen Sulfide Production from Copper Concentrates** Battelle Pacific Northwest Laboratories Richland, WA **ORDER FROM: NTIS-PB** 237 928/AS $5.25
650/2-74-086a	1AB013	**Procedures for Measurement in Stratified Gases – Volume I** Abcor, Incorporated, Walden Research Division Cambridge, MA **ORDER FROM: NTIS-PB** 241 837/AS $8.75

BIBLIOGRAPHIC SECTION

REPORT NO.

650/2-74-086b 1AB013 **Procedures for Measurement in Stratified Gases – Volume II, Appendices** Abcor, Incorporated, Walden Research Division Cambridge, MA **ORDER FROM: NTIS-PB** 241 838/AS $7.25

650/2-74-087 1AB015 **Identification and Assessment of Asbestos Emissions from Incidental Sources of Asbestos** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 241 999/AS $9.50

650/2-74-088 1AB015 **Assessment of Particle Control Technology for Enclosed Asbestos Sources** IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 239 926/AS $5.75

650/2-74-089 1AA010 **Investigation of Extractive Sampling Interface Parameters** Abcor, Incorporated, Walden Research Division Cambridge, MA **ORDER FROM: NTIS-PB** 242 515/AS $7.00

650/2-74-090 1AB015 **Characterization and Control of Asbestos Emissions from Open Sources --- Abstracted 600/9-75-001b** --IIT Research Institute Chicago, IL **ORDER FROM: NTIS-PB** 238 925/AS $7.25

650/2-74-091 1AB013 **Systems Analysis Requirements for Nitrogen Oxide Control of Stationary Sources** Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 237 367/AS $6.25

650/2-74-092 1AB012 **Sodium Conditioning to Reduce Fly Ash Resistivity** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 236 922/AS $3.25

650/2-74-093 1AB012 **Fine Particle Scrubber Performance Tests** A.P.T., Inc. Riverside, CA **ORDER FROM: NTIS-PB** 240 325/AS $8.50

650/2-74-094 1AA010 **Infrared Gas Filter Correlation Instrument for In-Situ Measurement of Gaseous Pollutants** Philco-Ford Corporation Newport Beach, CA **ORDER FROM: NTIS-PB** 239 467/AS $4.25

650/2-74-095 1AB015 **Fluoride Emissions from Phosphoric Acid Plant Gypsum Ponds** North Carolina State University Raleigh, NC **ORDER FROM: NTIS-PB** 241 144/AS $9.50

650/2-74-096 1AA002 **Effect of Fuel Additives Study** Michigan, University of Ann Arbor, MI **ORDER FROM: NTIS-PB** 240 169/AS $4.25

650/2-74-097 1AB015 **Vinyl Chloride – An Assessment of Emissions Control Techniques and Costs** BY B. H. Carpenter, Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 237 343/AS $4.75

650/2-74-098 1AB013 **Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes** M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 238 263/AS $8.75

650/2-74-098a 1AB013 **Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes, Part 2** BY S. Caceres, L. Do, N. Gonzalez, H. A. Kahn, G. K. Mathur, and J. J. O'Donnell, M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 250 724/AS $9.00

650/2-74-099 1AB013 **Environmental Considerations for Oil Shale Development** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 241 942/AS $5.75

650/2-74-100 1AB012 **Process Modifications for Control of Particulate Emissions from Stationary Combustion, Incineration, and Metals** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 237 422 $5.25

650/2-74-101 1AB015 **Atmospheric Emissions from Asphalt Roofing Processes** PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 238 445/AS $6.25

650/2-74-102 1AB012 **Particulate Sizing Techniques for Control Device Evaluation** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 240 670/AS $5.75

650/2-74-102a 1AB012 **Particulate Sizing Techniques for Control Device Evaluation** BY W. B. Smith, K. M. Cushing, and J. D. McCain, Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 245 184/AS $5.75

650/2-74-103 1AB012 **Design, Fabrication, and Installation of a Particulate Aerodynamic Test Facility** Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 245 197/AS $5.25

650/2-74-104 1AB013 **Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion and Regeneration of Sulfur-Containing Additives** Argonne National Laboratory Argonne, IL **ORDER FROM: NTIS-PB** 237 754/AS $5.75

650/2-74-105 1AA008 **Analysis of the Composition of the Atmosphere in the Los Angeles Basin** Abcor, Incorporated, Walden Research Division Cambridge, MA **ORDER FROM: NTIS-PB** 239 466/AS $4.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-106	1AB015	**System Analysis of Air Pollutant Emissions from the Chemical/ Plastics Industry** Foster D. Snell, Inc. Florham Park, NJ **ORDER FROM: NTIS-PB** 239 880/AS $8.75
650/2-74-107	1AB015	**Characterization of Atmospheric Emissions from Polyurethane Resin Manufacture** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 237 420/AS $4.75
650/2-74-108	1AB012	**Wet Scrubber Liquid Utilization** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 237 749/AS $5.75
650/2-74-109	1AB013	**Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil – Second Phase** Esso Research and Engineering Company Berkshire, England **ORDER FROM: NTIS-PB** 240 632/AS $13.25
650/2-74-110	1AB015	**Mathematical Simulation of an Adsorber for Pollutant Removal --- Abstracted 600/9–75–001b** --Kansas State University Manhattan, KS **ORDER FROM: NTIS-PB** 239 331/AS $4.75
650/2-74-111	1AB012	**Measurement of Sulfur Dioxide, Particulate, and Trace Elements in Copper Smelter Converter and Roaster/Reverberatory Gas Streams** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 095/AS $4.75
650/2-74-112	1AB012	**EPA Fine Particle Scrubber Symposium (San Diego, 5/28–30/74)** A.P.T., Inc. Riverside, CA **ORDER FROM: NTIS-PB** 239 335/AS $8.50
650/2-74-113	1AA010	**Remote Sensing of Pollutants – Computerized Reduction of Long-Path Absorption Data** Wave Propagation Laboratory, NOAA/ERL Boulder, CO **ORDER FROM: NTIS-PB** 240 168/AS $7.25
650/2-74-114	1AB012	**Conditioning of Fly Ash with Sulfamic Acid, Ammonium Sulfate, and Ammonium Bisulfact --- Abstracted 600/9–75–001b** --Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 238 922/AS $4.25
650/2-74-115	1AB015	**Trace Pollutant Emissions from the Processing of Metallic Ores** PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 238 655/AS $8.75
650/2-74-116	1AB012	**Changes in the Global Energy Balance** M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 238 075/AS $3.75
650/2-74-117	1AB012	**Sources and Characterization of Fine Particulate Test Dusts --- Abstracted 600/9–75–001b** --Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 238 924/AS $5.25
650/2-74-118	1AB013	**Symposium Proceedings: Environmental Aspects of Fuel Conversion Technology (May 1974, St. Louis, Missouri) --- Abstracted 600/9–75–001b** --Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 304/AS $10.00
650/2-74-119a	1AB013	**Entrainment Separators for Scrubbers – Initial Report** A.P.T., Inc. Riverside, CA **ORDER FROM: NTIS-PB** 241 189/AS $9.25
650/2-74- 19b	1AB013	**Entrainment Separators for Scrubbers – Final Report** BY S. Calvert, S. Yung, and J. Leung, A.P.T., Inc. San Diego, CA **ORDER FROM: NTIS-PB** 248 050/AS $7.75
650/2-74-120	1AA010	**In-Stack Transmissometer Measurement of Particulate Opacity and Mass Concentration --- Abstracted 600/9–75–001b** --Philco-Ford Corporation Newport Beach, CA **ORDER FROM: NTIS-PB** 239 864/AS $5.25
650/2-74-121	1AA010	**Development of Method for Carcinogenic Vapor Analysis in Ambient Atmospheres** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 239 770/AS $6.25
650/2-74-122	1AB015	**Trace Pollutant Emissions from the Processing of Non-Metallic Ores** PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 240 117/AS $8.75
650/2-74-123	1AB013	**Boiler Modification Cost Survey for Sulfur Oxides Control by Fuel Substitution --- Abstracted 600/9–75–001b** --Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 239 455/AS $5.25
650/2-74-124	1AA010	**Development of Sampling Method for Total Atmospheric Selenium --- Abstracted 600/9–75–001b** --- Southern Research Institute Birmingham, AL **ORDER FROM:** PB No. Pending
650/2-74-125	1AB013	**Pollutant Analysis Cost Survey** U.S. Department of Commerce Washington, DC **ORDER FROM: NTIS-PB** 241 991 $7.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-74-126a	1AB013	**Symposium on Flue Gas Desulfurization – Atlanta, November 1974 Volume I** Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 572/AS $15.25
650/2-74-126b	1AB013	**Proceedings: Symposium on Flue Gas Desulfurization – Atlanta, November 1974, Volume II** Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 573/AS $12.25
650/2-74-127	1AB013	**Evaluation of Sulfur Dioxide Emission Control Options for Iowa Power Boilers** M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 239 496/AS $10.00
650/2-74-128	1AA010	**Measurement of the Opacity and Mass Concentration of Particulate Emissions by Transmissometry** Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 241 251/AS $3.75
650/2-74-129	1AB012	**Evaluation of Aeronetic Two-Phase Jet Scrubber** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 239 422/AS $3.75
650/2-74-129a	1AB012	**Evaluation of Centrifield Scrubber** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 243 626/AS $3.75
650/2-74-130	1AB013	**Production of Low-Sulfur Gasoline** M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 240 558/AS $5.75
650/2-74-131	1AB013	**Determination of Hazardous Elements in Smelter-Produced Sulfuric Acid** Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 240 343/AS $4.25
650/2-74-132	1AB012	**Electrostatic Precipitator Performance Model --- Abstracted 600/9–75–001b** --Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 238 923/AS $7.00
650/2-74-133	1AA010	**Development of a Prototype Nitrate Detector** Abcor, Incorporated, Walden Research Division Cambridge, MA **ORDER FROM:** Pending
650/2-75-001a	1AB014	**Assessment of Catalysts for Control of NO_x from Stationary Power Plants, Phase I, Volume I – Final Report --- Abstracted 600/9–75–001c** --TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 239 745/AS $7.25
650/2-75-001b	1AB014	**Assessment of Catalysts for Control of NO_x from Stationary Power Plants, Phase I, Volume II – Data Bank Citation Indices --- Abstracted 600/9–75–001c** --TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 239 746/AS $8.50
650/2-75-002	1AB012	**Influence of Fiber Characteristics on Particulate Filtration --- Abstracted 600/9–75–001c** --Textile Research Institute Princeton, NJ **ORDER FROM: NTIS-PB** 239 997/AS $4.25
650/2-75-003	1AA010	**Seminar Summary: Sampling and Analysis of the Various Forms of Atmospheric Lead** BY A. Hoyt, Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 240 620/AS $3.25
650/2-75-004	1AA010	**Quantitative Analysis of Airborne Asbestos by X-Ray Diffraction: Final Report on Feasibility Study** Naval Research Laboratory Washington, DC **ORDER FROM: NTIS-PB** 241 285 $3.25
650/2-75-005a	1AA003	**Limited SO_2 and NO_x Measurements in St. Louis, 1974: Volume I – Plume Tracking by Correlation Spectroscopy** Environmental Measurements, Inc. San Francisco, CA **ORDER FROM:** Pending
650/2-75-005b	1AA003	**Limited SO_2 and NO_x Measurements in St. Louis, 1974: Volume II, Longline Ambient SO_2 Monitor and Variability of SO_2 and NO_x** Environmental Measurements, Inc. San Francisco, CA **ORDER FROM:** Pending
650/2-75-006	1AB013	**Theoretical and Experimental Study of the Lime/Limestone Wet Scrubbing Process --- Abstracted 600/9–75–001c** --Radian Corporation Austin, TX **ORDER FROM: NTIS-PB** 243 399/AS $9.50
650/2-75-007	1AA010	**Development of Sampling Procedures for Polycyclic Organic Matter and Polychlorinated Biphenyls** Langston Laboratories, Inc. Leawood, KS **ORDER FROM: NTIS-PB** 243 362/AS $5.25
650/2-75-008	1AA010	**In-Stack Transmissometer Evaluation and Application to Particulate Opacity Measurement --- Abstracted 600/9–75–001c** --Fecker Systems, Owens-Illinois, Inc. Pittsburgh, PA **ORDER FROM: NTIS-PB** 243 402/AS $5.75
650/2-75-009	1AB012	**Fabric Filter Cleaning Studies --- Abstracted 600/9–75–001c** --GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 240 372/AS $10.50

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-75-010a	1AB013	**Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume I: Final Report – Executive Summary --- Abstracted 600/9-75-001c** --Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 618/AS $4.25
650/2-75-010b	1AB013	**Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume II: Final Report – Technical Discussion --- Abstracted 600/9-75-001c** --Control Systems Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 619/AS $9.25
650/2-75-011	1AB013	**Sulfur and Nitrogen Balances in the Solvent Refined Coal Process --- Abstracted 600/9-75-001c** --U.S. Department of the Interior Washington, DC **ORDER FROM: NTIS-PB** 243 893/AS $5.75
650/2-75-012	1AB014	**Analysis of Test Data for NOx Control in Gas and Oil-Fired Utility Boilers --- Abstracted 600/9-75-001c ---** Aerospace Corporation El Segundo, CA **ORDER FROM: NTIS-PB** 241 918/AS $8.50
650/2-75-013a	1AA010	**Development of a Prototype Sulfuric Acid Monitor** National Research Corporation Billerica, MA **ORDER FROM:** Pending
650/2-75-014	1AA002	**Effect of Gasoline Additives on Gaseous Emissions** U.S. Bureau of Mines Bartlesville, OK **ORDER FROM:** Pending
650/2-75-015	1AA010	**Fabrication and Installation of the Stationary Source Simulator** Aerotherm/Acurex Corporation Mountain View, CA **ORDER FROM:** Pending
650/2-75-016	1AB012	**Symposium on Electrostatic Precipitators for the Control of Fine Particles --- Abstracted 600/9-75-001c ---** Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 240 440/AS $12.00
650/2-75-017	1AB014	**Identification and Characterization of the Use of Mixed Conventional and Waste Fuels --- Abstracted 600/9-75-001c** --M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 241 821/AS $4.25
650/2-75-018	1AB012	**Design, Development, and Field Test of a Droplet Measuring Device** KLD Associates, Inc. Huntington, NY **ORDER FROM: NTIS-PB** 245 607/AS $4.25
650/2-75-019a	1AB015	**Source Assessment Prioritization of Air Pollution from Industrial Surface Coating Operations --- Abstracted 600/9-75-001c** --Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 243 423/AS $9.25
650/2-75-020	1AB013	**Continuous Measurement of Total Gas Flowrate from Stationary Sources --- Abstracted 600/9-75-001c ---** TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 241 894/AS $8.50
650/2-75-021	1AB013	**Distributions of Industrial and Commercial-Institution External Combustion Boilers --- Abstracted 600/9-75-001c** --Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 241 195/AS $11.50
650/2-75-022	1AB012	**Andersen Filter Substrate Weight Loss --- Abstracted 600/9-75-001c** --Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 240 720/AS $3.75
650/2-75-023	1AB014	**Evaluation of Prechamber Spark Ignition Engine Concepts --- Abstracted 600/9-75-001c** --Aerospace Corporation El Segundo, CA **ORDER FROM: NTIS-PB** 241 780/AS $7.50
650/2-75-024a	1AB012	**Pentapure Impinger Evaluation --- Abstracted 600/9-75-001c** --GCA Corporation Bedford, MA **ORDER FROM: NTIS-PB** 240 397/AS $4.25
650/2-75-025	1AA010	**Methodology for Assignment of a Hydrocarbon Photochemical Reactivity Index for Emissions From Mobile Sources** Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 240 721/AS $3.75
650/2-75-026a	1AB015	**Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume I --- Abstracted 600/9-75-001c** --Engineering Science, Inc. McLean, VA **ORDER FROM: NTIS-PB** 242 005 $4.25
650/2-75-026b	1AB015	**Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume II – Appendices --- Abstracted 600/9-75-001c** --Engineering Science, Inc. McLean, VA **ORDER FROM: NTIS-PB** 242 006 $7.50
650/2-75-027a	1AB013	**Fluidized Bed Combustion Process Evaluation (Phase I – Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume I – Summary --- Abstracted 600/9-75-001c** --Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 241 834/AS $5.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-75-027b	1AB013	**Fluidized Bed Combustion Process Evaluation (Phase I - Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume II - Appendices — Abstracted 600/9-75-001c —** Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 241 835/AS $10.50
650/2-75-027c	1AB013	**Fluidized Bed Combustion Process Evaluation Phase II - Pressurized Fluidized Bed Coal Combustion Development** BY D. L. Keairns, Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 246 116/AS $12.00
650/2-75-028	1AA010	**Improvement of Instrumentation and Methodology for Collection and Analysis of Mercury** Geomet, Inc. Pomona, CA **ORDER FROM: NTIS-PB** 242 295/AS $4.75
650/2-75-029	1AA010	**Development of Scanning Electron Microscopy for Measurement of Airborne Asbestos Concentrations** Franklin Institute Research Laboratories Philadelphia, PA **ORDER FROM:** Pending
650/2-75-030	1AB013	**Sulfur Compound Emissions of the Petroleum Production Industry --- Abstracted 600/9-75-001c** --M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 241 261/AS $6.25
650/2-75-031	1AB013	**Scale Control in Limestone Wet Scrubbing Systems — Abstracted 600/9-75-001c** —Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 243 309/AS $4.75
650/2-75-032a	1AB013	**Energy Consumption: The Chemical Industry --- Abstracted 600/9-75-001c** --Dow Chemical Company Freeport, TX **ORDER FROM: NTIS-PB** 241 927/AS $4.25
650/2-75-032b	1AB013	**Energy Consumption: The Primary Metals and Petroleum Industries --- Abstracted 600/9-75-001c** --Dow Chemical Company Freeport, TX **ORDER FROM:** Pending
650/2-75-032c	1AB013	**Energy Consumption: Paper, Stone/Clay/Glass/Concrete, and Food Industries — Abstracted 600/9-75-001c** --Dow Chemical Company Freeport, TX **ORDER FROM: NTIS-PB** 241 926/AS $4.25
650/2-75-032d	1AB013	**Energy Consumption: Fuel Utilization and Conservation in Industry** BY J. T. Reding, and B. P. Shepherd, Dow Chemical Company Freeport, TX **ORDER FROM: NTIS-PB** 246 888/AS $4.00
650/2-75-033	1AB012	**Particulate Collection Efficiency Measurements on a Wet Electrostatic Precipitator — Abstracted 600/9-75-001c** --M. W. Kellogg Company Houston, TX **ORDER FROM: NTIS-PB** 244 173/AS $4.25
650/2-75-034	1AB013	**Fuels Technology: A State-of-the-Art Review --- Abstracted 600/9-75-001c** --Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 242 535/AS $8.50
650/2-75-035	1AB014	**Application of Automatic Data Processing Technology to Laboratory Problems — Abstracted 600/9-75-001c** --Aerotherm Acurex Corporation Mountain View, CA **ORDER FROM: NTIS-PB** 244 886/AS $4.25
650/2-75-036	1AA010	**Asbestos Fiber Atlas** California Department of Health, State of Berkeley, CA **ORDER FROM:** Pending
650/2-75-037	1AB012	**Mathematical Model of Electrostatic Precipitation --- Abstracted 600/9-75-001c** --Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 246 188/AS $6.25
650/2-75-038	1AB015	**Potentially Hazardous Emissions From The Extraction and Processing of Coal and Oil — Abstracted 600/9-75-001c** --BY G. Cavanaugh, C. E. Burklin, and J. C. Dickerson, Radian Corporation Austin, TX BY H. E. Lebowitz, S. S. Tam, G. R. Smithson Jr., H. Nack, and J. H. Oxley, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 241 803/AS $6.25
650/2-75-039	1AA010	**Field Testing and Evaluation of Methods for Measuring Visibility** Northwest Environmental Technology Laboratory, Inc. Bellevue, WA **ORDER FROM:** Pending
650/2-75-040	1AB013	**Direct Use of Coal in a Fuel Cell: Feasibility Investigation** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 245 917/AS $4.25
650/2-75-041	1AA010	**Infrared Sensor for the Remote Monitoring of SO_2** SAI, Inc. LaJolla, CA **ORDER FROM: NTIS-PB** 243 478/AS $4.25
650/2-75-042	1AB015	**Demonstration of Reduced Hydrocarbon Emissions from Gasoline Loading Terminals --- Abstracted 600/9-75-001c** --Amoco Oil Company Naperville, IL **ORDER FROM: NTIS-PB** 243 363/AS $4.25
650/2-75-043	1AA010	**Investigation of Particulate Matter Monitoring Using Contact Electrification** California State College Turlock, CA **ORDER FROM: NTIS-PB** 245 055/AS $4.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2-75-044	1AB013	**St. Louis Refuse Processing Plant Equipment, Facility, and Environmental Evaluations --- Abstracted 600/9-75-001c** --Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 243 634/AS $5.25
650/2-75-045	1AB013	**Stone & Webster/Ionics SO_2 Removal and Recovery Process: Phase I, Final Report — Abstracted 600/9-75-001c** --Wisconsin Electric Power Company Milwaukee, WI **ORDER FROM: NTIS-PB** 243 720/AS $7.25
650/2-75-046	1AB013	**Evaluation of Low-Sulfur Western Coal Characteristics, Utilization, and Combustion Experience --- Abstracted 600/9-75-001c** --Monsanto Research Corporation Dayton, OH **ORDER FROM: NTIS-PB** 243 911/AS $12.50
650/2-75-047	1AB013	**EPA Alkali Scrubbing Test Facility: Summary of Testing Through October 1974 --- Abstracted 600/9-75-001c** --Bechtel Corporation San Francisco, CA **ORDER FROM: NTIS-PB** 244 901/AS $12.00
650/2-75-048	1AA003	**Fabrication of Monitoring System for Determining Mass and Composition of Aerosol as a Function of Time** Lawrence Berkeley Laboratory Berkeley, CA **ORDER FROM:** Pending
650/2-75-049	1AA001	**Cadmium in the Environment - III A Toxicological and Epidemiological Appraisal** Karolinska Institute Stockholm, Sweden **ORDER FROM: NTIS-PB** 246 115/AS $7.25
650/2-75-050	1AA010	**Development of Selective Hydrocarbon Sampling System and Field Evaluation with Conventional System** Analytical Research Laboratories, Inc. Monrovia, CA **ORDER FROM:** Pending
650/2-75-051a	1AA010	**Evaluation of Stationary Source Particulate Measurement Methods - Volume I, Portland Cement Plants** Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Pending
650/2-75-052	1AB013	**Lime/Limestone Scrubbing for SO_2 and Particulate Removal in a Marble Bed Scrubber** Combustion Engineering Inc. Windsor, CT **ORDER FROM: NTIS-PB** 246 114/AS $8.50
650/2-75-053a	1AA010	**Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions - Volume I** Scott Environmental Technology San Bernardino, CA **ORDER FROM:** Pending
650/2-75-053b	1AA010	**Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions - Volume II** Scott Environmental Technology San Bernardino, CA **ORDER FROM:** Pending
650/2-75-054	1AA002	**Particulate Emissions from Prototype Catalyst Cars** Exxon Research and Engineering Company Linden, NJ **ORDER FROM: NTIS-PB** 244 889/AS $7.25
650/2-75-055	1AA010	**Determination of Aircraft Turbine Engine Particulates** Airesearch Manufacturing Company of Arizona, Inc. Phoenix, AZ **ORDER FROM:** Pending
650/2-75-056	1AA002	**Methodology for Determining Fuel Effects on Diesel Particulate Emissions** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 245 163/AS $7.00
650/2-75-057a	1AB013	**Survey of Flue Gas Desulfurization Systems Cholla Power Generating Station, Arizona Public Service Company --- Abstracted 600/9-75-001c** --PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 244 141/AS $4.25
650/2-75-057b	1AB013	**Survey of Flue Gas Desulfurization Systems La Cygne Station, Kansas City Power and Light Co. and Kansas Gas and Electric Co. --- Abstracted 600/9-75-001d** --PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 244 401/AS $4.75
650/2-75-057c	1AB013	**Survey of Flue Gas Desulfurization Systems Phillips Power Station, Duquesne Light Co.** PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 285/AS $4.50
650/2-75-057d	1AB013	**Survey of Flue Gas Desulfurization Systems Paddy's Run Station, Louisville Gas and Electric** PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 136/AS $3.75
650/2-75-057e	1AB013	**Survey of Flue Gas Desulfurization Systems - Lawrence Power Station, Kansas Power and Light Company** BY G. A. Isaacs, and F. K. Zada, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 849/AS $4.50
650/2-75-057f	1AB013	**Survey of Flue Gas Desulfurization Systems - Eddystone Station, Philadelphia Electric Company** BY G. A. Isaacs, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 247 085/AS $4.00

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/2–75–057g	1AB013	**Survey of Flue Gas Desulfurization Systems – Dickerson Station, Potomac Electric Power Company** BY G. A. Isaacs, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 850/AS $4.00
650/2–75–057h	1AB013	**Survey of Flue Gas Desulfurization Systems – Hawthorn Station, Kansas City Power and Light Co.** BY G. A. Isaacs, and F. K. Zada, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 629/AS $4.50
650/2–75–057i	1AB013	**Survey of Flue Gas Desulfurization Systems – Will County Station, Commonwealth Edison Co.** BY G. A. Isaacs, and F. K. Zada, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 851/AS $4.50
650/2–75–057j	1AB013	**Survey of Flue Gas Desulfurization Systems – Reid Gardner Station, Nevada Power Co.** BY R. W. Gerstle, and G. A. Isaacs, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 852/AS $4.00
650/2–75–057k	1AB013	**Survey of Flue Gas Desulfurization Systems – Mohave Station, Southern California Edison Co.** BY G. A. Isaacs, and F. K. Zada, PEDCo-Environmental Specialists, Inc. Cincinnati, OH **ORDER FROM: NTIS-PB** 246 929/AS $4.00
650/2–75–058a	1AB012	**Johns-Manville CHEAF Evaluation** Air Pollution Technology, Inc. San Diego, CA **ORDER FROM:** Pending
650/2–75–059	1AB012	**Mobile Fabric Filter System Design and Field Test Results** GCA/Technology Division Bedford, MA **ORDER FROM: NTIS-PB** 246 287/AS $6.00
650/2–75–060	1AB015	**Drift Data Acquired on Mechanical Salt Water Cooling Devices** Environmental Systems Corporation Knoxville, TN **ORDER FROM: NTIS-PB** 246 800/AS $13.00
650/2–75–061a	1AB014	**Influence of Aerodynamic Phenomena on Formation in Combustion – Volume I. Experimental Results --- Abstracted 600/9–75–001d** --United Technologies Research Center East Hartford, CT **ORDER FROM: NTIS-PB** 245 344/AS $6.25
650/2–75–062	1AA010	**Remote Measurement of Power Plant Smoke Stack Effluent Velocity** Raytheon Company Sudbury, MA **ORDER FROM: NTIS-PB** 245 792/AS $5.75
650/2–75–063	1AB015	**Study of Ferroalloy Furnace Product Flexibility** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 247 273/AS $5.00
650/2–75–064	1AB015	**Study of Concepts for Minimizing Emissions From CokeOven Door Seals** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 245 580/AS $7.50
650/2–75–065	1AB013	**Identification of Regenerable Metal Oxide SO_2 Sorbents for Fluidized Coal Combustion --- Abstracted 600/9–75–001d** --Radian Corporation Austin, TX **ORDER FROM: NTIS-PB** 244 402/AS $7.25
650/2–75–066	1AB015	**Hazardous Emission Characterization of Utility Boilers --- Abstracted 600/9–75–001d** --Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 245 017/AS $7.00
650/2–75–067	1AA010	**Development of Air Sampling Methodology** Cincinnati, University of Cincinnati, OH **ORDER FROM: NTIS-PB** 245 026/AS $3.75
650/2–75–068	1AA002	**Methodology for Determining the Effects of Fuels and Additives on Atmospheric Visibility** Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 245 597/AS $4.25
650/2–75–069	1AA010	**Chemiluminescent Reactive Hydrocarbon Analyzer for Mobile Sources** Aero Chem Research Laboratory, Inc. Princeton, NJ **ORDER FROM: NTIS-PB** 245 126/AS $4.75
650/3–73–001	1AA009	**User's Manual for the APRAC-1A Urban Diffusion Model Computer Program** BY R. L. Mancuso, and F. L. Ludwig, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 213 091 $5.25
650/3–73–002	1AA008	**Determination of the Formation Mechanisms and Composition of Photochemical Aerosols** BY W. C. Kocmond, D. B. Kittelson, J. Y. Tang, and K. L. Demerjian, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 230 987 $5.25
650/3–74–001	1HA095	**Bibliography of the Cat** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 229 869/AS $8.25

BIBLIOGRAPHIC SECTION

REPORT NO.	
650/3-74-002	1AA008 **Haze Formation: It's Nature and Origin – 1973** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 231 535/AS $6.25
650/3-74-003	1AA009 **Wind Tunnel Tests of Negatively Buoyant Plumes** Colorado State University Fort Collins, CO **ORDER FROM: NTIS-PB** 231 590 $5.25
650/3-74-004a	1AA008 **Study of Factors Affecting Reactions in Environmental Chambers Final Report on Phase II** Lockheed Missiles and Space Company, Inc. Sunnyvale, CA **ORDER FROM: NTIS-PB** 236 390/AS $4.00
650/3-74-005	1AA009 **Precipitation Scavenging of Inorganic Pollutants from Metropolitan Sources** Battelle Pacific Northwest Laboratories Richland, WA **ORDER FROM: NTIS-PB** 237 374/AS $5.75
650/3-74-006	1AA008 **Structure and Reactivity of Adsorbed Oxides of Sulfur** BY J. H. Lunsford, Texas A&M University College Station, TX **ORDER FROM: NTIS-PB** 245 046/AS $4.75
650/3-74-007	1AA008 **Role of Solid-Gas Interactions in Air Pollution** Aerospace Corporation El Segundo, CA **ORDER FROM: NTIS-PB** 244 413/AS $4.75
650/3-74-008	1AA006 **Effects of Air Pollutants on Textile Fibers and Dyes** BY J. B. Upham, Chemistry and Physics Laboratory, EPA Research Triangle Park, NC BY V. S. Salvin, North Carolina, University of Greensboro, NC **ORDER FROM: NTIS-PB** 241 507/AS $4.75
650/3-74-009	1AA008 **Air Pollution Effects on Catastrophic Failure of Metals** BY J. Gerhard, and F. H. Haynie, Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 290/AS $3.75
650/3-74-010	1AA008 **Proceedings of the Solvent Reactivity Conference** Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 296/AS $3.75
650/3-74-011	1AA008 **Chemical Chnracterization of Model Aerosols** BY W. Schwartz, Battelle Memorial Institute Columbus, OH **ORDER FROM: NTIS-PB** 238 557/AS $5.75
650/3-75-001	1AA010 **Environmental Exposure System for Studying Air Pollution Damage to Materials** Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 240 615/AS $3.75
650/3-75-002	1AA008 **Exploratory Study of Factors Affecting Aerosol Formation** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 245 274/AS $3.75
650/3-75-003	1AA009 **Travels of Airborne Pollen** New York, State University of Albany, NY **ORDER FROM:** Pending
650/3-75-004	1AA008 **Formation of Aerosols in a Photochemical Fast Row Reactor** Rockwell International Thousand Oaks, CA **ORDER FROM:** Pending
650/3-75-005	1AA008 **Photochemical Oxidation of Kraft Air Pollutants** Maine, University of Orono, ME **ORDER FROM: NTIS-PB** 243 599/AS $3.25
650/3-75-006	1AA008 **Studies of Small Metallic Particles Formed by Homogeneous Nucleation: Light Scattering and Electron Microscopy** California, University of Santa Barbara, CA **ORDER FROM: NTIS-PB** 244 403/AS $3.75
650/3-75-007	1AA008 **Study of Aerosol Formation in Photochemical Air Pollution** Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 246 060/AS $7.00
650/3-75-008	1AA008 **Oxidation of Halocarbons** Pennsylvania State University University Park, PA **ORDER FROM: NTIS-PB** 245 153/AS $6.25
650/3-75-009	1AA003 **Regional Air Pollution Study Program – Final Report** Rockwill International Air Monitoring Center Newbury Park, CA **ORDER FROM:** Pending
650/3-75-010	1AA008 **Haze Formation: Its Nature and Origin – 1975** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 244 616/AS $5.25
650/3-75-011	1AA008 **Outdoor Smog Chamber Studies: Effect of Hydrocarbon Reduction on Nitrogen Dioxide** North Carolina, University of Chapel Hill, NC **ORDER FROM: NTIS-PB** 245 829/AS $7.25
650/4-73-001	1AA009 **Mesoscale Windfield Analysis of Los Angeles Basin** BY G. E. Anderson, Center for the Environment and Man, Inc. Hartford, CT **ORDER FROM: NTIS-PB** 231 832/AS $5.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/4-73-002	1AA009	**Lidar Studies of Stack Plumes in Rural and Urban Environments** BY W. B. Johnson, R. J. Allen, and W. E. Evans Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 227 347 $5.25
650/4-73-003	1HA326	**Determination of Coronal Ozone Production by High Voltage Power Transmission Lines** BY F. J. Whitmore, and R. L. Durfre, Versar, Inc. Springfield, VA **ORDER FROM: NTIS-PB** 229 994 AS $5.75
650/4-74-001	1AA009	**Application of Repro-Modeling to the Analysis of a Photochemical Air Pollution Model** BY A. Horowitz, W. S. Meisel, and D. C. Collins, Technology Service Corporation Santa Monica, CA **ORDER FROM: NTIS-PB** 231 667 AS $5.25
650/4-74-002	1AA009	**Meteorological Episodes of Slowest Dilution in Contiguous United States** BY B. Ryans National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 229 588 AS $7.50
650/4-74-003	1AA009	**Development of Modeling Technique for Photochemical Air Pollution** Systems, Science and Software La Jolla, CA **ORDER FROM: NTIS-PB** 237 692 AS $4.75
650/4-74-004	1AA008	**Molecular Modulation Spectrometry for Observation of Free Radicals** BY H. S. Johnston, California, University of Berkeley, CA **ORDER FROM:** Pending
650/4-74-005a	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume I-Determination of Stack Gas Velocity and Volumetric Flow Rate (Type-S Pitot Tube)** BY F. Smith, D. E. Wagoner, and A. C. Nelson Jr. Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 232 437 AS $4.25
650/4-74-005b	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume II – Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 235 712 AS $3.75
650/4-74-005c	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume III – Determination of Moisture in Stack Gases** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 240 354 AS $4.25
650/4-74-005d	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume IV – Determination of Particulate Emissions from Stationary Sources** Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
650/4-74-005h	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume VIII – Determination of CO Emissions from Stationary Sources by NDIR Spectrometry** Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
650/4-74-005l	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume XII – Determination of Phosphorus in Gasoline** Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
650/4-74-005m	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume XIII – Test for Lead in Gasoline by Atomic Absorption Spectrometry** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 241 264 AS $4.25
650/4-74-005n	1HA327	**Guidelines for Development of a Quality Assurance Program: Volume XIV – Screening Determination of Lead in Gasoline** Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
650/4-74-006	1AA009	**Methodology for Treating Large Localized Emissions of Reactive Pollutants** JRB Associates, Inc. La Jolla, CA **ORDER FROM:** Pending
650/4-74-007	1AA003	**Determination of Energetic Characteristics of Urban-Rural Surfaces in the Greater St. Louis Area** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 237 704 AS $5.25
650/4-74-008	1AA009	**User's Guide for Hiway, A Highway Air Pollution** BY R. S. Thompson, and J. R. Zimmerman, Meteorology Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 239 944 AS $4.25
650/4-74-009	1AA008	**Environmental Chamber Studies of Atmospheric Aerosols** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 244 745 AS $3.75
650/4-74-010	1AA010	**Synthesis of Trifluoromethylsulfur Pentafluoride (CF_3SF_5)** Armageddon Chemical Company Durham, NC **ORDER FROM: NTIS-PB** 233 149 AS $3.25
650/4-74-011	1AA008	**Mathematical Simulation of Atmospheric Photochemical Reactions: Model Development, Validation, and Application** Systems Applications, Inc. San Rafael, CA **ORDER FROM: NTIS-PB** 233 049 AS $6.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/4-74-012	1AA005	**Comparability of Nine Methods for Monitoring NO_2 in Ambient Air** Research Triangle Institute Research Triangle Park, NC **ORDER FROM:** Pending
650/4-74-013	1HA327	**Collaborative Study of EPA Methods 5,6, and 7 in Fossil Fuel-Fired Steam Generators** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 237 695/AS $3.75
650/4-74-014	1HA327	**Guide for the Evaluation of Atmospheric Analyzers** Air and Industrial Hygiene Laboratory, California State Department of Health Berkeley, CA **ORDER FROM: NTIS-PB** 233 048/AS $7.50
650/4-74-015	1HA327	**Survey of Manual Methods of Measurements of Asbestos, Beryllium, Lead, Cadmium, Selenium, and Mercury in Stationary Source Emissions** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 234 326/AS $6.25
650/4-74-016	1HA327	**Concepts for Development of Field Usable Test Atmosphere Generating Devices** Research Triangle Institute Research Triangle Park, NC **ORDER FROM: NTIS-PB** 235 774/AS $5.00
650/4-74-017	1AA008	**Design of the EPA Semi-Trailer Mobile Air Pollution Laboratory** Thermo-Systems, Inc. St. Paul, MN **ORDER FROM: NTIS-PB** 244 744/AS $4.25
650/4-74-018	1HA327	**Guidelines for Determining Performance Characteristics of Altimated Methods for Measuring Nitrogen Dioxide and Hydrocarbons, Corrected for Methane in Ambient Air** Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 092/AS $3.75
650/4-74-019a	1HA327	**Collaborative Testing Methods for Measurements of NO_2 in Ambient Air Volume I – Report of Testing** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 244 902/AS $5.25
650/4-74-020	1HA327	**Development of Technical Specifications for Standard Gas-Diluent Mixtures for Use in Measurement of Mobile Source Emissions** Scott Research Laboratories, Inc. Plumsteadville, PA **ORDER FROM: NTIS-PB** 245 050/AS $4.25
650/4-74-021	1HA327	**Collaborative Study of Method for the Determination of Particulate Matter Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators)** BY H. F. Hamil, and R. E. Thomas, Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 234 150/AS $5.00
650/4-74-022	1HA327	**Collaborative Study of Method for the Determination of Particulate Matter Emissions from Stationary Sources (Municipal Incinerators)** BY H. F. Hamil, and R. E. Thomas, Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 234 151/AS $5.00
650/4-74-023	1HA327	**Collaborative Study of Method 104 – Reference Method for Determination of Beryllium Emission from Stationary Sources** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 245 011/AS $4.75
650/4-74-024	1HA327	**Collaborative Study of Method for the Determination of Sulfur Dioxide Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 238 293/AS $4.25
650/4-74-025	1HA327	**Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Fossil Fuel-Fired Steam Generators)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 238 555/AS $5.25
650/4-74-026	1HA327	**Collaborative Study of Method for Stack Gas Analysis and Determination of Moisture Fraction with Use of Method 5** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 236 929/AS $3.75
650/4-74-027	1HA327	**Collaborative Study of Reference Method for Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method) (24-hour Sampling)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 239 731/AS $5.25
650/4-74-028	1HA327	**Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Nitric Acid Plants)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 236 930/AS $3.75
650/4-74-029	1HA327	**Collaborative Study of Method for the Determination of Particulate Emissions from Stationary Sources (Portland Cement Plants)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 237 346/AS $4.25
650/4-74-030	1AA003	**Development of Air Particulate Monitoring Systems** Lawrence Berkeley Laboratory Berkeley, CA **ORDER FROM: NTIS-PB** 239 690/AS $4.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/4-74-031	1HA327	**Evaluation of the Triethanolamine Procedure for the Determination of Nitrogen Dioxide in Ambient Air** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 237 348/AS $3.75
650/4-74-032	1AA009	**Sources and Natural Removal Processes for Some Atmospheric Pollutants** Pennsylvania State University University Park, PA **ORDER FROM: NTIS-PB** 237 168/AS $5.75
650/4-74-033	1HA327	**Collaborative Study of Method for Determination of Stack Gas Velocity and Volumetric Flow Rate in Conjunction with EPA Method 5** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 240 342/AS $3.75
650/4-74-034	1AA008	**Aerosol Formation from Gas-Phase Reactions of Ozone and Olefin in the Presence of Sulfur Dioxide** National Environmental Research Center, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 237 345/AS $7.50
650/4-74-035	1AA009	**Invariant Modeling of Turbulence and Diffusion in the Planetary Boundary Layer** Princeton, Incorporated, Aeronautical Research Associates Princeton, NJ **ORDER FROM: NTIS-PB** 239 323/AS $5.25
650/4-74-036	1AA003	**NO$_2$ Actinometer for Field Use** Philco-Ford Corporation Newport Beach, CA **ORDER FROM: NTIS-PB** 237 745/AS $4.25
650/4-74-037	1AA008	**Atmospheric Measurement of Photochemical Smog Reactions – A Preliminary Analysis** Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 210 422/AS $4.25
650/4-74-038	1AA009	**Proceedings of Symposium on Statistical Aspects of Air Quality** North Carolina, University of Chapel Hill, NC **ORDER FROM: NTIS-PB** 240 214/AS $8.50
650/4-74-039	1HA327	**Laboratory and Field Evaluations of EPA Methods 2, 6 and 7** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 238 267/AS $4.25
650/4-74-040	1AA008	**Mathematical Simulation of Smog Chamber Photo-Chemical Experiments** Systems Applications, Inc. San Rafael, CA **ORDER FROM: NTIS-PB** 238 094/AS $7.00
650/4-74-041	1AA009	**Diffusion in Turbulent Surface Layer and the Development of an Atmospheric Wind Tunnel** Notre Dame, University of Notre Dame, IN **ORDER FROM:** Pending
650/4-74-042	1HA326	**Study of Indoor Air Quality** Research Corporation of New England Wethersfield, CT **ORDER FROM: NTIS-PB** 238 556/AS $8.75
650/4-74-043	1AA009	**Highway Air Pollution Measurement Program Using Sulfur Hexafluoride Tracer Gas** Environmental Systems Laboratory, Inc. Sunnyvale, CA **ORDER FROM:** Pending
650/4-74-044	1AA009	**Laboratory and Numerical Simulation of Plume Dispersion in Stably Stratified Flow Over Complex Terrain** Flow Research, Inc. Kent, WA **ORDER FROM:** Pending
650/4-74-045a	1AA009	**Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume I** Pennsylvania State University, Department of Meteorology and Center for Air, Environmental Studies University Park, PA **ORDER FROM: NTIS-PB** 241 390/AS $10.25
650/4-74-045b	1AA009	**Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume II** Pennsylvania State University, Department of Meteorology and Center for Air, Environmental Studies University Park, PA **ORDER FROM: NTIS-PB** 241 391/AS $10.50 Three Volume Set – PB 241 389/AS $20.00
650/4-74-046	1HA327	**Collaborative Test of the TGS-ANSA Method for Measurement of Nitrogen Dioxide in Ambient Air** Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending
650/4-74-047	1HA327	**Evaluation of TGS-ANSA Procedure for Determination of Nitrogen Dioxide in Ambient Air** Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 238 097 $4.25
650/4-74-048	1HA327	**Evaluation of the Arsenite Procedure for the Determination of Nitrogen Dioxide in Ambient Air** Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 239 727/AS $3.75
650/4-74-049	1AA009	**Model Verification – Aircraft Emissions Impact on Air Quality** Geomet, Inc. Gaithersburg, MD **ORDER FROM: NTIS-PB** 249 449/AS $9.00

BIBLIOGRAPHIC SECTION

REPORT NO.

650/4–74–050 1AA003 **Development of Sampling Devices for Gaseous Atmospheric Tracers** Analytical Research Laboratories, Inc. Monrovia, CA **ORDER FROM: NTIS-PB** 238 921 $4.25

650/4–74–051 1AA003 **Feasibility of Metrac System for Regional Air Pollution Study** Control Data Corporation Minneapolis, MN **ORDER FROM:** Pending

650/4–74–052 1AA008 **Laboratory Analyses of Atmospheric Hydrocarbon – California South Coast Air Basin (Los Angeles Air Quality Control Region) August – November 1973** California Air Resources Board, State of El Monte, CA **ORDER FROM:** Pending

650/4–75–001 1HA327 **Collaborative Study of Method 10 – Reference Method for Determination of Carbon Monoxide Emissions from Stationary Sources – Report of Testing** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 241 284/AS $4.75

650/4–75–002 1AA002 **Comprehensive Technical Report on all Atmospheric Contaminants Associated with Photochemical Air Pollution** System Development Corporation Santa Monica, CA **ORDER FROM: NTIS-PB** 239 510/AS $12.25

650/4–75–003 1HA327 **Collaborative Study of Method for the Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 240 752/AS $4.25

650/4–75–004 1AA009 **Studies of Pollutant Concentration Frequency Distributions** Meteorology Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 579/AS $5.45

650/4–75–005 1AA009 **Optimization of Air Pollution Measurement Locations** Kaman Sciences Corporation Colorado Springs, CO **ORDER FROM:** Pending

650/4–75–006 1AA008 **Spectroscopic Study of California Smog** Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 241 022/AS $4.25

650/4–75–007 1HA327 **Summary Report: Workshop on Ozone Measurement by the Potassium Iodide Method** Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 240 939/AS $3.75

650/4–75–008 1HA327 **Survey of Users of the EPA – Reference Method for Measurement of Non-Methane Hydrocarbons in Ambient Air** Scott Environmental Technology Plumsteadville, PA **ORDER FROM:** Pending

650/4–75–009 1HA327 **Evaluation and Collaborative Study of Method for Visual Determination of Opacity of Emissions from Stationary Sources** Southwest Research Institute San Antonio, TX **ORDER FROM:** Pending

650/4–75–010 1AA009 **Statistical Questions Relating to the Validation of Air Quality Simulation Models** BY G. W. Brier, Brier, Glenn W., Consultant Fort Collins, CO **ORDER FROM: NTIS-PB** 241 866/AS $3.25

650/4–75–011 1HA327 **Collaborative Test of the Continuous Colori-Metric Method for Measurement of Nitrogen Dioxide in Ambient Air** Midwest Research Institute Kansas City, MO **ORDER FROM:** Pending

650/4–75–012 1AA009 **Relationship Between Circumsolar Sky Brightness and Atmospheric Aerosols** Alaska, University of Fairbanks, AK **ORDER FROM: NTIS-PB** 241 806/AS $5.25

650/4–75–013 1HA327 **Collaborative Test of the Chemiluminescent Method for Measurement of NO_2 in Ambient Air** Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 246 843/AS $6.00

650/4–75–014 1HA327 **Evaluation of the Proposed Ambient Air Monitoring Equivalent and Reference Methods** Air and Industrial Hygiene Laboratory Berkeley, CA **ORDER FROM: NTIS-PB** 245 185/AS $8.50

650/4–75–015 1AA009 **Some Topics Relating to Modeling of Dispersion in Boundary Layer** North Carolina State University Raleigh, NC **ORDER FROM: NTIS-PB** 243 524/AS $4.25

650/4–75–016 1HA327 **Collaborative Study of Reference Method for Measurement of Ozone in the Atmosphere (Ozone-Ethylene Chemiluminescent Method)** Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 244 105/AS $3.75

650/4–75–017 1AA009 **Effects of Atmospheric Aerosols on Infrared Irradiance at the Earth's Surface in a Non-Urban Environment** BY A. Hoyt, Meteorology Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 243 635/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
650/4-75-018a	1AA009	**Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase I** Geomet, Inc. Gaithersburg, MD **ORDER FROM: NTIS-PB** 249 062/AS $7.50
650/4-75-018b	1AA009	**Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase II** Geomet, Inc. Gaithersburg, MD **ORDER FROM: NTIS-PB** 249 729/AS $4.50
650/4-75-019	1HA327	**Evaluation of Effects of NO, CO_2 and Sampling Flow Rate on Arsenite Procedure for Measurement of NO_2 in Ambient Air** BY B. Ryans, Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 285/AS $3.75
650/4-75-020	1AA008	**Ambient Air Measurements of Vinyl Chloride in the Niagara Falls Area** BY A. Hoyt, Chemistry and Physics Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 243 695/AS $3.25
650/4-75-021	1HA327	**Evaluation of Gas Phase Titration Technique as Used for Calibration of Nitrogen Dioxide Chemiluminescence Analyzers** BY B. Ryans, Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 242 294/AS $3.75
650/4-75-022	1HA327	**Evaluation of a Continuous Colorimetric Method for Measurement of Nitrogen Dioxide in Ambient Air** BY B. Ryans, Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 243 462/AS $3.75
650/4-75-023	1HA326	**Comparison of Methods for Determination of Nitrogen Dioxide in Ambient Air** BY B. Ryans, Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 245 025/AS $4.75
650/4-75-024a	1HA327	**Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Quality Assurance Guidelines** Olson Laboratories, Inc. Anaheim, CA **ORDER FROM: NTIS-PB** 245 787/AS $9.25
650/4-75-024b	1HA327	**Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Test Procedures** Olson Laboratories, Inc. Anaheim, CA **ORDER FROM: NTIS-PB** 245 788/AS $8.50
650/4-75-025	1HA327	**Method for Obtaining Replicate Particulate Samples from Stationary Sources** BY B. Tilton, and A. Hoyt, Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC **ORDER FROM: NTIS-PB** 245 045/AS $3.75
650/4-75-026	1AA008	**Mathematical Modeling of Simulated Photochemical Smog** Systems Applications, Inc. San Rafael, CA **ORDER FROM: NTIS-PB** 246 122/AS $6.25
650/5-73-001	1AA005	**Study of the Social and Economic Impact of Odors – Phase III** Copley International Corporation La Jolla, CA **ORDER FROM: NTIS-PB** 223 589/AS $7.50
650/5-73-002	1AA004	**Assessment of Economic Impact of Air Pollutants on Vegetation in the United States, 1969 and 1971** BY H. M. Benedict, C. J. Miller, and J. S. Smith, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 224 818 $4.25
650/9-75-001a	1AA001	**World's Air Quality Management Standards: Volume 1 – The Air Quality Management Standards of the World, Including United States Federal Standards** North Carolina, University of Chapel Hill, NC **ORDER FROM: NTIS-PB** 241 875/AS $10.50
650/9-75-001b	1AA001	**World's Air Quality Management Standards: Volume 11 – The Air Quality Management Standards of the United States** North Carolina, University of Chapel Hill, NC **ORDER FROM: NTIS-PB** 241 876/AS $10.25
660/2-73-001	1BA032	**Plume Temperature Measurements of Shallow Submerged Model Discharges With Current** BY L. Winiarski, and J. Chasse, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 223 014 $4.25
660/2-73-002	1BB045	**Nitrate and Nitrite Volatilization By Microorganisms in Laboratory Experiments** BY J. M. Ballay, Pennsylvania State University University Park, PA **ORDER FROM: GPO-**EP1.23/2:660/2-73-002 $1.00 **NTIS-PB** 224 467/AS
660/2-73-003	1BA032	**Statistical Prediction of Equilibrium Temperature From Standard Meteorological Data Bases** BY C. M. Hogan, L. C. Patmore, and H. Seidman, Environmental Systems Laboratory, Inc. Sunnyvale, CA **ORDER FROM: GPO-**EP1.23/2:660/2-73-003 $2.55 **NTIS-PB** 226 874/AS

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-73-004	1BB036	**Nomographs for Thermal Pollution Control Systems** BY C. Jedlicka, Hittman Associates, Inc. Columbia, MD **ORDER FROM: GPO-**EP1.23/2:660/2-73-004 $1.80 **NTIS-PB** 228 582
660/2-73-005	1BB044	**Batch Disinfection of Treated Wastewater With Chlorine at Less Than 1 Degree C** BY R. C. Gordon, and C. V. Davenport, Arctic Environmental Research Laboratory, EPA Fairbanks, AK **ORDER FROM: GPO-**EP1.23/2:660/2-73-005 $0.65 **NTIS-PB** 228 092
660/2-73-006a	1BB045	**Wastewater Treatment and Reuse By Land Application, Volume I – Summary** BY C. E. Pound, BY R. W. Crites, and Metcalf and Eddy, Inc. Palo Alto, CA **ORDER FROM: GPO-**EP1.23/2:660/2-73-006a $1.10 **NTIS-PB** 225 940
660/2-73-006b	1BB045	**Wastewater Treatment and Reuse By Land Application, Volume II – Summary** BY C. E. Pound, and R. W. Crites, Metcalf and Eddy, Inc. Palo Alto, CA **ORDER FROM: GPO-**EP1.23/2:660/2-73-006b $3.25 **NTIS-PB** 225 941
660/2-73-007	1BA027	**Evaluation of Flame Emission Determination of Phosphorus in Water** BY W. R. Seitz, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-73-007 $0.50 **NTIS-PB** 225 142/9AS
660/2-73-008	1BA027	**Mercury in the Environment** BY D. H. Klein, Hope College Holland, MI **ORDER FROM: GPO-**EP1.23/2:660/2-73-008 $0.65 **NTIS-PB** 231 256/AS
660/2-73-009	1BA027	**Evaluation of a Microwave-Induced Plasma Spectrometer for Trace Analysis** BY W. R. Seitz, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-73-009 $0.65 **NTIS-PB** 231 390
660/2-73-010	1BB036	**Treatment of Domestic Wastewater and NSSC Pulp and Paper Mill Wastes** BY P. J. Farrell, L. R. Heble, and A. G. Stenhser, Harriman Utility Board Harriman, TN **ORDER FROM: GPO-**EP1.23/2:660/2-73-010 $1.40 **NTIS-PB** 231 267/AS
660/2-73-011	1BB392	**Explicit Calibration of the Pills II System** BY F. M. Shofner, Environmental Systems Corporation Knoxville, TN **ORDER FROM: GPO-**EP1.23/2:660/2-73-011 $0.65 **NTIS-PB** 228 094
660/2-73-012	1BA032	**Negatively Buoyant Jets in a Cross Flow** BY J. L. Anderson, F. L. Parker, and B. A. Benedict, Vanderbilt University Nashville, TN **ORDER FROM: GPO-**EP1.23/2:660/2-73-012 $2.50 **NTIS-PB** 234 177
660/2-73-013	1BA027	**Environmental Applications of Advanced Instrumental Analysis: Assistance Projects, FY 72** BY A. L. Alford, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-73-013 $0.85 **NTIS-PB** 228 147/AS
660/2-73-014	1BA024	**Subsurface Biological Activity in Relation to Ground Water Pollution** BY W. J. Dunlap, and J. F. McNabb, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-73-014 $0.90 **NTIS-PB** 227 990
660/2-73-015	1BB037	**Recovery of Fatty Materials From Edible Oil Refinery Effluents** BY W. C Seng, Swift and Company Oakbrook, IL **ORDER FROM: GPO-**EP1.23/2:660/2-73-015 $1.60 **NTIS-PB** 231 268/AS
660/2-73-016	1BA032	**Reviewing Environmental Impact Statements – Power Plant Cooling Systems, Engineering Aspects** BY A. G. Christianson, F. H. Rainwater, M. A. Shirazi, and B. A. Tichenor, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23/2:660/2-73-016 $1.35 **NTIS-PB** 228 604/AS
660/2-73-017	1BB044	**Lime Disinfection of Sewage Bacteria at Low Temperature** BY S. M. Morrison, K. L. Martin, and D. E. Humbel, Colorado State University Fort Collins, CO **ORDER FROM: GPO-**EP1.23/2:660/2-73-017 $1.35 **NTIS-PB** 228 565/AS
660/2-73-018	1BB036	**Air Flotation – Biological Oxidation of Synthetic Rubber and Latex Wastewater** BY A. H. King, J. Ogea, and J. W. Sutton, Firestone Synthetic Rubber and Latex Company Lake Charles, Louisiana **ORDER FROM: GPO-**EP1.23/2:660/2-73-018 $1.60 **NTIS-PB** 229 408
660/2-73-019	1BB037	**Color Removal From Kraft Mill Effluents By Ultrafiltration** BY H. A. Fremount, D. C. Tate, and R. L. Goldsmith, U.S. Plywood-Champion Paper, Inc. Hamilton, OH **ORDER FROM: GPO-**EP1.23/2:660/2-73-019 $2.40 **NTIS-PB** 231 257/AS
660/2-73-020	1BB037	**Information Resource: Final Report Water Pollution Control in Water Utilities** BY H. A. Faber, A. D. Narbozgi, and M. J. Taras, American Water Works Association Research Foundation New York, NY **ORDER FROM: GPO-**EP1.23/2:660/2-73-020 $1.05 **NTIS-PB** 231 270 $4.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-73-021	1BB037	**Waste Control and Abatement in the Processing of Sweet Potatoes** BY C. Smallwood, North Carolina State University Raleigh, NC **ORDER FROM: GPO-**EP1.23/2:660/2-73-021 $1.15 **NTIS-PB** 238 469
660/2-73-022	1BB045	**Tertiary Treatment With a Controlled Ecological System** BY A. L. Gram, Gram/Phillips Associates, Inc. Water District Calabasas, CA **ORDER FROM: GPO-**EP1.23/2:660/2-73-022 $0.90 **NTIS-PB** 231 261/AS
660/2-73-023	1BB036	**Regeneration of Chromated Aluminum Deoxidizers** BY H. C. Hicks, and R. A. Jarmuth, Boeing Commercial Airplane Company Seattle, WA **ORDER FROM: GPO-**EP1.23/2:660/2-73-023 $1.95 **NTIS-PB** 231 835/AS $6.25
660/2-73-024	1BB036	**Treatment and Recovery of Fluoride Industrial Waste** BY C. J. Staebler Jr., Grumman Aerospace Corporation Bethpage, NY **ORDER FROM: GPO-**EP1.23/2:660/2-73-024 $1.40 **NTIS-PB** 234 447
660/2-73-025a	1BB045	**Hypolimnion Aeration With Commercial Oxygen – Volume I – Dynamics of Bubble Plume** BY R. E. Speece, and Fawzi Rayyan, Texas, University of Austin, TX **ORDER FROM: GPO-**EP1.23/2:660/2-73-025a $2.00 **NTIS-PB** 231 265/AS
660/2-73-025b	1BB045	**Hypolimnion Aeration With Commercial Oxygen – Volume II – Bubble Plume Gas Transfer** BY R. E. Speece, and G. Murfee, Texas, University of Austin, TX **ORDER FROM: GPO-**EP1.23/2:660/2-73-025b $1.80 **NTIS-PB** 231 266/AS
660/2-73-026	1BB392	**Technical and Economic Evaluation of Cooling Systems Blowdown Control Techniques** BY D. B. Bories, J. E. Levia, and B. Baratz, WAPORA, Inc. Washington, DC **ORDER FROM: GPO-**EP1.23/2:660/2-73-026 $1.20 **NTIS-PB** 231 258/AS
660/2-73-027	1BA027	**Tissue Enzyme Assay for Chlorinated Hydrocarbon Insecticides** BY L. K. Cutkomp, Minnesota, University of St. Paul, MN **ORDER FROM: GPO-**EP1.23/2:660/2-73-027 $0.85 **NTIS-PB** 234 404
660/2-73-028	1BB037	**Coliform Bacteria Growth and Control in Aerated Stabilization Basins** BY S. W. Watkins, Crown Zellerbach Corporation Camas, WA **ORDER FROM: GPO-**EP1.23/2:660/2-73-028 $2.75 **NTIS-PB** 231 259/AS
660/2-73-029	1BA025	**Mathematical Model for Barged Ocean Disposal of Wastes** BY R. C.Y. Kah, and Y. C. Chngy, Tetra Technology, Inc. Pasadena, CA **ORDER FROM: GPO-**EP1.23/2:660/2-73-029 $4.85 **NTIS-PB** 232 018
660/2-73-030	1BB037	**Treatment of Sulfite Evaporator Condensates for Recovery of Volatile Components** BY K. W. Baierl, N. L. Chang, B. F. Lueck, A. J. Wiley, and R. A. Holm, Institute of Paper Chemistry Appleton, WI **ORDER FROM: GPO-**EP1.23/2:660/2-73-030 $2.10 **NTIS-PB** 233 139
660/2-73-031	1BB037	**Proceedings Fourth National Symposium on Food Processing Wastes** Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23/2:660/2-73-031 $4.50 **NTIS-PB** 234 606
660/2-73-032	1BB036	**Sulfuric Acid and Ferrous Sulfate Recovery From Waste Pickle Liquor** BY J. K. Seyler, W. E. Thornton, and M. K. Householder, Fitzsimmons Steel Company Youngstown, OH **ORDER FROM: GPO-**EP1.23/2:660/2-73-032 $1.20 **NTIS-PB** 233 112
660/2-73-033	1BB036	**New Membranes for Reverse Osmosis Treatment of Metal Finishing Effluents** BY L. T. Rozielle, C. V. Kopp Jr., and K. E. Cobian, North Star Research Corporation Minneapolis, MN **ORDER FROM: GPO-**EP1.23/2:660/2-73-033 $1.40 **NTIS-PB** 240 722/AS $4.75
660/2-73-034	1BA027	**Infrared Fourier Transform Spectrometry of Gas Chromatography Effluents** BY L. V. Azarraga, and A. C. McCall, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-73-034 $1.10 **NTIS-PB** 241 304/AS $4.25
660/2-73-035	1BB042	**Joint Construction Sediment Control Project** BY B. C. Becker, D. B. Emerson, and M. A. Nawrocki, Hittman Associates, Inc. Columbia, MD Maryland, State of, Water Resources Administration Annaplois, MD **ORDER FROM: GPO-**EP1.23/2:660/2-73-035 $2.00 **NTIS-PB** 235 634/AS
660/2-73-036	1BB036	**Chemical/Physical and Biological Treatment of Wool Processing Wastes** BY L. T. Hatch, R. E. Sharpin, and W. T. Wirtanen, Metcalf and Eddy, Inc. Boston, MA **ORDER FROM: GPO-**EP1.23/2:660/2-73-036 $1.05 **NYIS-PB** 233 137
660/2-73-037	1BB037	**Modular Wastewater Treatment System Demonstration For the Textile Maintenance Industry** BY G. Douglas, Envirex, Inc. Milwaukee, WI **ORDER FROM: GPO-**EP1.23/2:660/2-73-037 $3.45 **NTIS-PB** 231 837
660/2-73-038	1BB036	**Final Report Deep Water Pilot Plant Treatability Study** Delaware River Basin Commission Trenton, NJ **ORDER FROM: GPO-**EP1.23/2:660/2-73-038 $4.10 **NTIS-PB** 234 441

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-73-039	1BB392	**Measurement of Residual Chlorine Levels in Cooling Water — Amperometric Method** BY R. Manabe, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23/2:660/2-73-039 $1.10 **NTIS-PB** 238 780/AS
660/2-74-001	1BA027	**Multielement Analyses of Environmental Samples by Spark Source Mass Spectrometry** BY C. E. Taylor, and W. J. Taylor, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-001 $0.65 **NTIS-PB** 234 456
660/2-74-002	1BA027	**Evaluation of a Computer Program for GC-MS Specific Ion Monitoring** BY A. L. Alford, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-002 $0.75 **NTIS-PB** 240 124/AS $3.75
660/2-74-003	1BB045	**Conference on Recycling Treated Municipal Wastewater Through Forest and Cropland** BY W. E. Sopper, and L. T. Kardos, Pennsylvania State University University Park, PA **ORDER FROM: GPO-**EP1.23/2:660/2-74-003 $1.20 **NTIS-PB** 236 313/AS
660/2-74-004	1BA027	**Specific Ion Mass Spectrometric Detection for Gas Chromatographic Pesticide Analysis** BY M. B. Newher, and J. R. Hoyland, Battelle Memorial Institute Columbus, OH **ORDER FROM: GPO-**EP1.23/2:660/2-74-004 $1.55 **NTIS-PB** 233 136
660/2-74-005	1BB039	**Quantification of Pollution in Agricultural Runoff** BY J. N. Dornbush, J. R. Andersen, and L. L. Harms, South Dakota State University Brookings, SD **ORDER FROM: NTIS-PB** 233 134 $6.75
660/2-74-006	1BB037	**Wastewater Abatement in Canning Vegetables by IQB Blanching** BY D. B. Lund, Wisconsin, University of Madison, WI **ORDER FROM: GPO-**EP1.23/2:660/2-74-006 $1.25 **NTIS-PB** 234 495
660/2-74-007	1BB037	**Industrial Water Softener Waste Brine Reclamation** BY J. Burton, and E. Kreusch, Culligan International Company Northbrook, IL **ORDER FROM: GPO-**EP1.23/2:660/2-74-007 $1.95 **NTIS-PB** 233 132
660/2-74-008	1BB037	**Color Removal and Sludge Disposal Process for Kraft Mill Effluents** BY E. L. Spruill, Continental Can Company Hodge, LA **ORDER FROM: GPO-**EP1.23/2:660/2-74-008 $1.65 **NTIS-PB** 235 573/AS
660/2-74-009	1BB039	**Demonstration of Three Recirculating Swine Waste Management Systems** BY J. R. Miner, T. E. Hazen, R. J. Smith, and G. B. Parker, Iowa State University Ames, IA **ORDER FROM: GPO-**EP1.23/2:660/2-74-009 $1.90 **NTIS-PB** 234 179
660/2-74-010	1BA024	**Saline Groundwater Produced with Oil and Gas** BY A. G. Collins, U.S. Bureau of Mines Bartlesville, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-010 $1.15 **NTIS-PB** 234 385
660/2-74-011	1BB392	**Demonstration of Thermal Water Utilization in Agriculture** BY J. W. Berry, and H. H. Miller Jr., Eugene Water and Electric Board Eugene, OR **ORDER FROM: GPO-**EP1.23/2:660/2-74-011 $2.80 **NTIS-PB** 234 178
660/2-74-012	1BB037	**Treatment of Cheese Processing Wastewaters in Aerated Lagoons** BY F. R. Daul, Kent Cheese Company Melrose Park, IL **ORDER FROM: GPO-**EP1.23/2:660/2-74-012 $1.50 **NTIS-PB** 237 334/AS
660/2-74-013	1BB039	**Pesticide, Transport and Runoff Model for Agricultural Land** BY N. H. Crawford, and A. S. Donigian, Hydrocomp, Inc. Palo Alto, CA **ORDER FROM: GPO-**EP1.23/2:660/2-74-013 $2.40 **NTIS-PB** 235 723/AS $4.90
660/2-74-014	1BB037	**Activated Sludge – Bio-Disc Treatment of Distillery Wastewater** BY J. L. Thomas, and L. G. Koehrsen, Stanley Consultants, Inc. Muscatine, IA American Distilling Company Pekin, IL **ORDER FROM: GPO-**EP1.23/2:660/2-74-014 $1.40 **NTIS-PB** 234 383
660/2-74-015		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/2-74-016	1BB045	**Renovation of Secondary Effluent for Re-use as a Water Resource** BY L. T. Kardos, W. E. Sopper, E. Myers, and J. Nesbitt, Pennsylvania State University University Park, PA **ORDER FROM: GPO-**EP1.23/2:660/2-74-016 $4.80 **NTIS-PB** 234 176
660/2-74-017	1BB039	**Herbicide Runoff from Four Coastal Plain Soil Types** BY G. W. Bailey, W. R. Payne, and C. N. Smith, Southeast Environmental Research Laboratory, EPA Athens, GA BY A. P. Barnett, Southern Piedmont Conservation Research Center Watkinsville, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-017 $1.45 **NTIS-PB** 235 571/AS
660/2-74-018	1BB040	**Storage and Disposal of Iron Ore Processing Wastewater** BY C. R. Baillod, and G. R. Alger, Michigan Technological University Houghton, MI **ORDER FROM: GPO-**EP1.23/2:660/2-74-018 $1.80 **NTIS-PB** 234 180

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-74-019	1BB040	**North Fork Alluvial Decontamination Project, Hubbard Creek Reservoir Watershed** BY B. L. Jacob, Texas Municipal Water District, West Central Abilene, TX **ORDER FROM: GPO-**EP1.23/2:660/2-74-019 $0.95 **NTIS-PB** 236 798/AS
660/2-74-020	1BB037	**Evaluation of Polymeric Clarification of Meat-Packing and Domestic Wastewaters** Metropolitan Sewer Board St. Paul, MN **ORDER FROM: GPO-**EP1.23/2:660/2-74-020 $2.30 **NTIS-PB** 235 900/AS
660/2-74-021	1BA027	**Analysis of Coprostanol, An Indicator of Fecal Contamination** BY J. E. Singley, C. J. Kirchmer, and R. Miura, Florida, University of Gainesville, FL **ORDER FROM: GPO-**EP1.23/2:660/2-74-021 $1.60 **NTIS-PB** 235 491/AS
660/2-74-022		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/2-74-023	1BB039	**Odors from Confined Livestock Production – A State of the Art** BY J. R. Miner, Ohio State University Columbus, OH **ORDER FROM: GPO-**EP1.23/2:660/2-74-023 $1.70 **NTIS-PB** 234 182
660/2-74-024	1BB039	**Livestock and the Environment – A Bibliography with Abstracts** BY R. J. Ramsey, East Central State College Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-024 $3.50 **NTIS-PB** 242 545/AS $10.00
660/2-74-025	1BB037	**Protein Production from Acid Whey VIA Fermentation** BY S. Bernstein, and T. C. Everson, Milbrew, Inc. Juneau, WI **ORDER FROM: GPO-**EP1.23/2:660/2-74-025 $1.25 **NTIS-PB** 235 504/AS
660/2-74-026		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/2-74-027	1BB037	**Treatment of Packing House Waste by Anaerobic Lagoons in Plastic-Media Filters** BY D. A. Baker, A. H. Wymore, and J. E. White, Family and Foods, Inc. Denison, IA **ORDER FROM: GPO-**EP1.23/2:660/2-74-027 $1.20 **NTIS-PB** 235 566/AS
660/2-74-028	1BB037	**Biological Treatment of Concentrated Sugar Beet Wastes** BY J. H. Fisher, Beet Sugar Development Foundation Fort Collins, CO **ORDER FROM: GPO-**EP1.23/2:660/2-74-028 $1.75 **NTIS-PB** 240 123/AS $4.75
660/2-74-029	1BB037	**Color Characterization Before and After Lime Treatment** BY H. S. Dugal, R. M. Leekley, and J. W: Swanson, Institute of Paper Chemistry Appleton, WI **ORDER FROM: GPO-**EP1.23/2:660/2-74-029 $2.15 **NTIS-PB** 235 493/AS
660/2-74-030	1BB039	**Anaerobic-Aerobic Lagoon Treatment of Dairy Manure Wastes** BY D. E. Proctor, Washington State University Pullman, WA **ORDER FROM: NTIS-PB** 235 574 $6.00
660/2-74-031	1BB037	**Water and Waste Management in Poultry Processing** BY R. E. Carawan, J. Macon, and W. M. Crosswhite, North Carolina State University Raleigh, NC BY B. K. Hawkins, Gold Kist, Inc. Durham, NC **ORDER FROM: GPO-**EP1.23/2:660/2-74-031 $2.50 **NTIS-PB** 235 559/AS $7.50
660/2-74-032	1BB039	**Pesticide Movement from Crop Lands into Lake Erie** BY A. C. Waldron, Ohio State University, Department of Entomology Columbus, OH **ORDER FROM: GPO-**EP1.23/2:660/2-74-032 $1.40 **NTIS-PB** 235 650/AS
660/2-74-033	1BB039	**Nitrogen and Phosphorus Losses from Agronomy Plots in North Alabama** BY R. R. Bradford, Alabama A&M College Normal, AL **ORDER FROM: GPO-**EP1.23/2:660/2-74-033 $0.90 **NTIS-PB** 235 931/AS
660/2-74-034	1BB039	**Liquid Aerobic Composting of Cattle Wastes and Evaluation of Byproducts** BY F. Grant, and F. Brommenschenkel Jr., Chino Basin Municipal Water District Cucamonga, CA **ORDER FROM: GPO-**EP1.23/2:660/2-74-034 $0.95 **NTIS-PB** 235 914/AS
660/2-74-035	1BB037	**Improvement of Treatment of Food Industry Waste** BY S. B. Tuwiner, RAI Research Corporation Haupage, Long Island, NY **ORDER FROM: GPO-**EP1.23/2:660/2-74-035 $1.25 **NTIS-PB** 234 444
660/2-74-036	1BB039	**Development of Field Applied DDT** BY K. H. Sweeny, J. R. Fischer, A. F. Gray, H. J. Marcus, and D. H. W. Liu, Envirogenics Company, Division of Aerojet-General Corporation El Monte, CA **ORDER FROM: GPO-**EP1.23/2:660/2-74-036 $1.45 **NTIS-PB** 235 943/AS
660/2-74-037	1BB040	**Brine Disposal Treatment Practices Relating to the Oil Production Industry** BY G. W. Reid, L. E. Streebin, L. Canter, and J. Smith, Oklahoma, University of Norman, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-037 $2.90 **NTIS-PB** 235 886/AS
660/2-74-038	1BB040	**State-of-the-Art: Uranium Mining, Milling, and Refining Industry** BY D. A. Clark, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-038 $1.55 **NTIS-PB** 235 557/AS $5.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-74-039	1BB036	**Catalyzed Bio-Oxidation and Tertiary Treatment of Integrated Textile Wastewaters** BY A. J. Snyder, Fram Corporation Pawtucket, RI BY T. A. Alspaugh, Cone Mills Corporation Greensboro, NC **ORDER FROM: GPO-**EP1.23/2:660/2-74-039 $1.55 **NTIS-PB** 238 292/AS
660/2-74-040	1BB037	**Granite Industry Wastewater Treatment** BY W. B. Farnham, Vermont, State of, Department of Water Resources Montpelier, VT **ORDER FROM: GPO-**EP1.23/2:660/2-74-040 $1.45 **NTIS-PB** 235 505
660/2-74-041	1BB045	**Wastewater Use in the Production of Food and Fiber—Proceedings of Conference held at Oklahoma City, OK March 5–7, 1974** Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-041 $5.35 **NTIS-PB** 245 176/AS $13.25
660/2-74-042	1BB045	**Land Application of Sludge Effluent and Sludges: Selected Abstracts** Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-042 $2.80 **NTIS-PB** 235 386 $8.50
660/2-74-043	1BB042	**Prediction of Sub-soil Erodibility Using Chemical, Mineralogical and Physical Parameters** BY C. Roth, D. Nelson, and M. J. M. Romkens, Purdue University Lafayette, IN **ORDER FROM: GPO-**EP1.23/2:660/2-74-043 $1.90 **NTIS-PB** 239 442/AS $3.90
660/2-74-044	1BB037	**Test Method for Volatile Component Stripping of Wastewater** BY L. J. Thibodeaux, Arkansas, University of, College of Engineering Fayetteville, AR **ORDER FROM: GPO-**EP1.23/2:660/2-74-044 $1.70 **NTIS-PB** 235 567/AS
660/2-74-045	1BA027	**Comparison of Germanium Detectors for Neutron Activation Analysis for Mercury** BY R. V. Moore, and O. W. Propheter, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-045 $.65 **NTIS-PB** 235 944/AS
660/2-74-046	1BB037	**Paunch Manure as a Feed Supplement in Channel Catfish Farming** BY R. C. Summerfelt, Oklahoma State University Stillwater, OK BY S. C. Yin, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-046 $1.60 **NTIS-PB** 235 575/AS
660/2-74-047	1BB039	**Waste Treatment System for Confined Hog Raising Operations** BY W. R. Park, Midwest Research Institute Kansas City, MO **ORDER FROM: GPO-**EP1.23/2:660/2-74-047 $1.20 **NTIS-PB** 235 558/AS $4.75
660/2-74-048	1BA027	**Implementation of a Computer Based Information System for Mass Spectral Identification** BY J. R. Hoyland, and M. B. Neher, Battelle Memorial Institute Columbus, OH **ORDER FROM: GPO-**EP1.23/2:660/2-74-048 $1.10 **NTIS-PB** 239 933 $3.75
660/2-74-049	1BB039	**Selected Irrigation Return Flow Quality Abstracts: 1972–1973** BY G. V. Skogerboe, W. R. Walker, R. S. Bennett, and B. J. Zakely, Colorado State University Fort Collins, CO **ORDER FROM: GPO-**EP1.23/2:660/2-74-049 $3.85 **NTIS-PB** 235 385 $10.50
660/2-74-050	1BB036	**Research Study of Coal Preparation Plant and By-Product Coke Plant Effluents** BY E. F. Pearson, C. F. and T. Steel Corporation Pueblo, CO **ORDER FROM:** Pending
660/2-74-051		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/2-74-052	1BB039	**Evaluation of Irrigation Scheduling for Salinity Control in Grand Valley** BY G. V. Skogerboe, W. R. Walker, J. H. Taylor, and R. S. Bennett, Colorado State University Fort Collins, CO **ORDER FROM: GPO-**EP1.23/2:660/2-74-052 $1.30 **NTIS-PB** 235 633/AS
660/2-74-053	1BB045	**Hypolimnetic Flow Regimes in Lakes and Impoundments** BY J. Edinger, N. Yonagida, and I. M. Cohen, Pennsylvania, University of Philadelphia, PA **ORDER FROM: GPO-**EP1.23/2:660/2-74-053 $2.10 **NTIS-PB** 235 391 $7.00
660/2-74-054	1BB039	**Volatization of Losses of Pesticides from Soil** BY J. Lenny, and W. J. Farmer, California, University of Riverside, CA **ORDER FROM: GPO-**EP1.23/2:660/2-74-054 $1.45 **NTIS-PB** 239 325/AS
660/2-74-055	1BB036	**Physical-Chemical Treatment of Municipal Wastes by Recycled Magnesium Carbonate** BY A. P. Black, A. T. DeBose, and R. P. Vogh, Gainesville, City of Gainesville, FL **ORDER FROM: GPO-**EP1.23/2:660/2-74-055 $1.90 **NTIS-PB** 239 326/AS
660/2-74-056	1BA024	**Ground Water Contamination in the Northeast States** BY D. W. Miller, F. A. DeLuca, and T. L. Tessier, Geraghty and Miller, Inc. Port Washington, NY **ORDER FROM: GPO-**EP1.23/2:660/2-74-056 $3.30 **NTIS-PB** 235 702/AS $5.80

BIBLIOGRAPHIC SECTION

REPORT NO.

660/2-74-057 1BB039 **Soil Modification for Denitrification and Phosphate Reduction of Feed Let Wastes** BY A. E. Erickson, W. J. Ellis, J. D. Pievge, A. R. Wolcott, C. M. Hansen, F. P. Peabody, E. C. Miller, and J. W. Thomas, Michigan State University East Lansing, MI **ORDER FROM: GPO-**EP1.23/2:660/2-74-057 $1.60 **NTIS-PB** 235 909/AS

660/2-74-058 1BB037 **Proceedings: Fifth National Symposium on Food Processing Wastes** BY K. A. Dostal, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23/2:660/2-74-058 $3.80 **NTIS-PB** 237 520/AS $6.30

660/2-74-059 1BB037 **Submerged Combustion Evaporator for Concentration of Brewery Spent Grain Liquor** BY J. L. Stein, Anheuser Busch St. Louis, MO **ORDER FROM: GPO-**EP1.23/2:660/2-74-059 $1.85 **NTIS-PB** 238 475/AS

660/2-74-060 1BB037 **Poultry Processing Wastewater Treatment and Reuses** BY J. D. Cliese, Maryland, State of, Department of Health and Mental Hygiene Baltimore, MD **ORDER FROM: GPO-**EP1.232/:660/2-74-060 $1.15 **NTIS-PB** 237 185/AS

660/2-74-061 1BB037 **Shrimp Canning Waste Treatment Study** BY A. F. Maudlin, and A. J. Szabo, Dominque, Szabo and Associates, Inc. Lafayette, LA **ORDER FROM: GPO-**EP1.23/2:660/2-74-061 $2.05 **NTIS-PB** 239 050/AS

660/2-74-062 1BB045 **Feasibility of Overflow Overland Flow Treatment of Feedlot Runoff** BY R. E. Thomas, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-062 $.85 **NTIS-PB** 238 481/AS

660/2-74-063 1BB039 **Design Parameters for Animal Waste Treatment Systems** BY T. B. S. Parkasam, P. Y. Loehu, P. Y. Yang, T. W. Scott, and T. W. Bateman, Cornell University Ithaca, NY **ORDER FROM: GPO-**EP1.23/2:660/2-74-063 $3.00 **NTIS-PB** 245 028/AS $7.50

660/2-74-064 1BB039 **Pollution Aspects of Catfish Production—Review and Projections** BY J. C. Barker, J. L. Chesness, and R. E. Smith, Georgia, University of Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-064 $1.65 **NTIS-PB** 244 943/AS $5.75

660/2-74-065 1BB040 **Evaluation of Tailings Ponds Sealants** BY D. A. Clark, and J. E. Moyer, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-065 $.70 **NTIS-PB** 235 929/AS

660/2-74-066 1BB040 **State-of-the-Art: Sand and Gravel Industry** BY B. D. Newport, and J. E. Moyer, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-066 $.85 **NTIS-PB** 236 147/AS $2.85

660/2-74-067 1BB040 **Pollution Problems and Research Needs for an Oil Shale Industry** BY F. M. Pfeffer, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-067 $.85 **NTIS-PB** 236 608/AS

660/2-74-068 1BB039 **Losses of Fertilizers and Pesticides from Claypan Soils** BY G. E. Smith, Missouri, University of Columbia, MO **ORDER FROM: GPO-**EP1.23/2:660/2-74-068 $1.45 **NTIS-PB** 239 931 $4.75

660/2-74-069 1BB037 **Studies of Low Molecular Weight Lignin Sulfonates** BY W. G. Glasser, J. S. Gratzl, K. Forso, B. F. Hrutfiord, L. N. Johanson, J. L. McCarthy, and J. Collins, Washington, University of Seattle, WA **ORDER FROM: GPO-**EP1.23/2:660/2-74-069 $1.55 **NTIS-PB** 239 368/AS

660/2-74-070 1BB044 **Extended Aeration Sewage Treatment in Cold Climate --- Abstracted 600/9-75-001a** —BY H. J. Coutts, and C. B. Christianson, Arctic Environmental Research Laboratory, EPA College, AK **ORDER FROM: NTIS-PB** 240 350/AS $4.75

660/2-74-071 1BB042 **Programmed Demonstration for Erosion and Sediment Control Specialist** BY T. R. Mills, M. A. Nawrocki, G. R. Squire, H. T. Hopkins, and M. L. Clar, Maryland, State of, Water Resources Administration Annapolis, MD **ORDER FROM: GPO-**EP1.23/2:660/2-74-071 $2.15 **NTIS-PB** 239 425/AS $4.65

660/2-74-072 1BB042 **Demonstration of the Separation and Disposal of Concentrated Sediments** BY M. A. Nawrocki, Hittman Associates, Inc. Columbia, MD **ORDER FROM: GPO-**EP1.23/2:660/2-74-072 $1.45 **NTIS-PB** 239 322/AS

660/2-74-073 1BB042 **Executive Summary of Three EPA Demonstration Programs in Erosion and Sediment Control** BY G. Sitek, B. C. Becker, and M. A. Nawrocki, Hittman Associates, Inc. Columbia, MD **ORDER FROM: GPO-**EP1.23/2:660/2-74-073 $1.20 **NTIS-PB** 239 333/AS

660/2-74-074 1BB037 **Rum Distillery Slops Treatment by Anaerobic Contact Process** BY T. Shea, E. Ramos, J. Rodriguez, and G. Dorion, Bacardi Company San Juan, PR **ORDER FROM: GPO-**EP1.23/2:660/2-74-074 $1.55 **NTIS-PB** 238 291/AS

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-74-075	1BB037	**Wastewater Characterization for the Specialty Food Industry** BY C. J. Schmidt, J. Farquhar, and E. V. Clements, SCS Engineers Long Beach, CA **ORDER FROM: GPO-**EP1.23/2:660/2-74-075 $2.00 **NTIS-PB** 239 968/AS $5.75
660/2-74-076	1BA027	**Automated Analysis of Individual Refractory Organics in Polluted Water** BY W. Pitt, R. Jolley, and S. Katz, Oak Ridge National Laboratory Oak Ridge, TN **ORDER FROM: GPO-**EP1.23/2:660/2-74-076 $1.75 **NTIS-PB** 239 774/AS $5.25
660/2-74-077	1BA024	**Organic Compounds Entering Groundwater from a Landfill** BY J. Robertson, G. R. Toussaint, and M. A. Jorque, Oklahoma, University of Norman, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-077 $1.15 **NTIS-PB** 237 969/AS
660/2-74-078	1BA027	**Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY '73** BY A. L. Alford, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23/2:660/2-74-078 $1.00 **NTIS-PB** 238 472/AS
660/2-74-079	1BA027	**Ion-Selective Membranes Electrodes for Water Pollution Water Monitoring** BY G. A. Rechnitz, New York, State University of Buffalo, NY **ORDER FROM: GPO-**EP1.23/2:660/2-74-079 $0.80 **NTIS-PB** 238 490/AS $2.80
660/2-74-080		**(Unassigned) ORDER FROM:** (Unassigned)
660/2-74-081	1BA029	**Summary Report, Trail-Marking and Alarm Pheromones of Some Ants of the Genus Atta** BY R. G. Riley, and R. M. Silverstein, New York, State University of Syracuse, NY **ORDER FROM: NTIS-PB** 235 562/AS $4.75
660/2-74-082	1BA023	**Dispersal Processes in Lake Huron** BY G. T. Csanady, I. S. F. Jones, and B. C. Kenney, Waterloo, University of Ontario, Canada **ORDER FROM:** Pending
660/2-74-083	1BA023	**Dynamics and Diffusion in the Great Lakes** BY G. T. Csanady, B. Pade, G. M. Bragg, M. Mekinda, and A. M. Hale, Waterloo, University of Ontario, Canada **ORDER FROM:** Pending
660/2-74-084	1BB039	**Evaluation of Drainage for Salinity Control in Grand Valley** BY G. Skogerboe, W. R. Walker, R. S. Bennett, J. Ayars, and J. Taylor, Colorado State University Fort Collins, CO **ORDER FROM: GPO-**EP1.23/2:660/2-74-084 $1.75 **NTIS-PB** 240 213/AS $5.25
660/2-74-085	1BA032	**Effect of Geographical Variation on Performance of Recirculating Cooling Ponds** BY E. L. Thaxton, Vanderbilt University Nashville, TN **ORDER FROM: GPO-**EP1.23/2:660/2-74-085 $3.20 **NTIS-PB** 238 903/AS
660/2-74-086	1BB037	**Mercury Recovery from Contaminated Waste Waters and Sludges** Georgia Pacific Corporation Bellingham, WA **ORDER FROM: GPO-**EP1.23/2:660/2-74-086 $1.95 **NTIS-PB** 238 600/AS
660/2-74-087	1BB045	**Feasibility of Overland Flow for Treatment of Raw Domestic Wastewater** BY R. E. Thomas, K. Jackson, and L. Penrod, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: GPO-**EP1.23/2:660/2-74-087 $.85 **NTIS-PB** 238 926/AS
660/2-74-088	1BB037	**Infrared Dry Caustic vs. Wet Caustic Peeling of White Potatoes** BY O. Sproul, J. Vennes, W. Knudson, and J. W. Cyr, Western Potato Service, Inc. Grand Forks, ND Potato Service, Inc. Presque Isle, ME **ORDER FROM: NTIS-PB** 244 408/AS $4.25
660/2-74-089	1BB392	**Water Recycle/Reuse Possibilities: Power Plant Boiler and Cooling System** BY G. R. Nelson, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23/2:660/2-74-089 $1.15 **NTIS-PB** 238 794/AS $3.15
660/2-74-090	1BB039	**Conversion of Cattle Feedlot Wastes to Ammonia Synthesis Gas** BY J. E. Halligan, H. W. Parker, R. M. Swaezy, and K. L. Herzog, Texas Technical University Lubbock, TX **ORDER FROM: NTIS-PB** 239 668/AS $4.25
660/2-74-091	1BB037	**Continuous Inplant Hot Gas Blanching of Vegetables** BY J. W. Ralls, and W. A. Mercer, National Canners Association Berkeley, CA **ORDER FROM: NTIS-PB** 238 601/AS $5.50
660/2-74-092	1BB037	**Dry Caustic Heating of Clingstone Peaches on a Commercial Scale** BY H. E. Stone, DelMonte Corporation San Francisco, CA **ORDER FROM: NTIS-PB** 239 751/AS $4.25
660/2-74-093	1BB037	**Separation, Dewatering, and Disposal of Sugar Beet Transport Water Solids Phase I** BY I. V. Fordyce, and A. M. Cooley, American Crystal Sugar Company Denver, CO **ORDER FROM: GPO-**EP1.23/2:660/2-74-093 $1.35 **NTIS-PB** 239 200/AS
660/2-74-094	1BB036	**Pollution Control Technology for Pesticide Formulators and Packagers --- Abstracted 600/9-75-001a** --BY T. L. Ferguson, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 241 001/AS $6.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-75-001	1BB037	**Waste Citrus Activated Sludge As a Poultry Feed Ingredient --- Abstracted 600/9-75-001a** --BY R. H. Jones, J. T. White, and B. L. Damron, Winter Garden Citrus Products Cooperative Winter Garden, FL **ORDER FROM: NTIS-PB** 240 672/AS $4.25
660/2-75-002	1BB037	**Pilot Scale Treatment of Wine Stillage --- Abstracted 600/9-75-001a** --BY E. D. Schroeder, California, University of Davis, CA **ORDER FROM: NTIS-PB** 240 996/AS $5.75
660/2-75-003	1BB039	**Livestock and the Environment---A Bibliography with Abstracts, Volume II --- Abstracted 600/9-75-001a** --BY R. H. Ramsey, M. L. Rowe, and L. Merryman, East Central Oklahoma State University Ada, OK **ORDER FROM: NTIS-PB** 243 223/AS $5.75
660/2-75-004	1BB037	**Activated Carbon Treatment of Unbleached Kraft Effluent for Reuse --- Abstracted 600/9-75-001a** --BY E. W. Lang, W. G. Timpe, and R. L. Miller, St. Regis Paper Company Pensacola, FL **ORDER FROM: NTIS-PB** 243 246/AS $7.25
660/2-75-005	1BB039	**Management Practices Affecting Quality and Quantity of Irrigation Return Flow --- Abstracted 600/9-75-001a** --BY L. G. King, and R. J. Hanks, Utah State University Logan, UT **ORDER FROM: NTIS-PB** 242 827/AS $6.25
660/2-75-006	1BB036	**Plant Scale Studies of the Magnesium Carbonate Water Treatment Process** BY A. P. Black, and C. G. Thompson, Black, Crow and Eidsness, Inc. Montgomery, AL **ORDER FROM: NTIS-PB** 242 253/AS $6.25
660/2-75-007	1BB045	**Water Quality Effect of Diking a Shallow Arid-Region Lake --- Abstracted 600/9-75-001a** --BY D. K. Fuhriman, L. B. Merritt, J. S. Bradshaw, and J. R. Barton, Brigham Young University Provo, UT **ORDER FROM: NTIS-PB** 241 984/AS $7.50
660/2-75-008	1BB045	**Role of Trace Elements in Management of Nuisance Growths --- Abstracted 600/9-75-001a** --BY T. Bott, R. Patrick, and R. Larson, Academy of Natural Sciences of Philadelphia Philadelphia, PA **ORDER FROM: NTIS-PB** 241 985/AS $8.50
660/2-75-009	1BB039	**Use of Soil Parameters for Describing Pesticide Movement Through Soils --- Abstracted 600/9-75-001b** --- BY J. M. Davidson, G. H. Brusewitz, D. R. Baker, and A. L. Wood, Oklahoma State University Stillwater, OK **ORDER FROM: NTIS-PB** 242 859/AS $6.25
660/2-75-010	1BB039	**Research Status of Effects of Land Application of Animal Wastes --- Abstracted 600/9-75-001b** --BY W. L. Powers, G. W. Wallingford, and L. S. Murphy, Kansas State University Manhattan, KS **ORDER FROM: NTIS-PB** 243 472/AS $5.25
660/2-75-011	1BB036	**Process and Environmental Technology for Producing SNG and Liquid Fuels --- Abstracted 600/9-75-001b** --BY M. R. Beychok, Beychok, Milton R., Consulting Engineer Irvine, CA **ORDER FROM: NTIS-PB** 242 774/AS $6.25
660/2-75-012	1BB039	**Survival of Pathogens in Animal Manure Disposal --- Abstracted 600/9-75-001c** --BY S. L. Diesch, P. R. Goodrich, B. S. Pomeroy, and L. A. Will, Minnesota, University of St. Paul, MN **ORDER FROM: NTIS-PB** 245 005/AS $5.75
660/2-75-013	1BB039	**Treatment and Ultimate Disposal of Cattle Feedlot Wastes --- Abstracted 600/9-75-001b** --BY H. L. Manges, R. I. Lipper, L. S. Murphy, W. L. Powers, and L. A. Schmid, Kansas State University Manhattan, KS **ORDER FROM: NTIS-PB** 244 185/AS $5.75
660/2-75-014	1BB036	**Recycle of Synthetic Warp Sizes From Textile Desizing Wastewater --- Abstracted 600/9-75-001c** --BY C. E. Bryan, North Carolina State University Raleigh, NC **ORDER FROM: NTIS-PB** 244 387/AS $4.25
660/2-75-015	1BB039	**Pollution Abatement From Cattle Feedlots in Northeastern Colorado and Nebraska --- Abstracted 600/9-75-001c** --BY L. K. Porter, F. G. Viets, T. M. McCalla, L. F. Elliott, F. A. Norstadt, H. R. Duke, N. P. Swanson, L. N. Mielke, and G. L. Hutchinson, U.S. Department of Agriculture Fort Collins, CO **ORDER FROM: NTIS-PB** 246 242/AS $5.75
660/2-75-016	1BB036	**Application of Exchange Resins for Treatment of Textile Dye Wastes** BY A. Maggiolo, and J. H. Sayles, Bennett College Greensboro, NC **ORDER FROM: NTIS-PB** 244 404/AS $3.75
660/2-75-017	1BB036	**Radiation Treatment of High Strength Chlorinated Hydrocarbon Wastes --- Abstracted 600/9-75-001c** --BY T. F. Craft, R. D. Kimbrough, and C. T. Brown, Georgia Institute of Technology Atlanta, GA **ORDER FROM: NTIS-PB** 244 388/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/2-75-018	1BB045	**Use of Climatic Data in Design of Soils Treatment Systems --- Abstracted 600/9-75-001c** --BY D. Whiting, U.S. Department of Commerce Asheville, NC **ORDER FROM: NTIS-PB** 244 098/AS $4.75
660/2-75-019	1BB037	**Egg Breaking and Processing Waste Control and Treatment --- Abstracted 600/9-75-001c** --BY W. J. Jewell, H. R. Davis, O. F. Johndrew Jr., R. C. Loehr, W. Siderewicz, and R. R. Zall, Cornell University Ithaca, NY **ORDER FROM: NTIS-PB** 245 588/AS $7.00
660/2-75-020	1BB036	**Refinery Effluent Water Treatment Plant Using Activated Carbon --- Abstracted 600/9-75-001c** --BY G. C. Loop, Atlantic Richfield Company Carson, CA **ORDER FROM: NTIS-PB** 244 389/AS $5.25
660/2-75-021	1BB036	**Optimizing a Petrochemical Waste Bio-Oxidation System Through Automation --- Abstracted 600/9-75-001c** --BY M. A. Zeitoun, W. F. McIlheny, N. J. Riscan, J. H. Culp, and H. C. Behrens, Dow Chemical Company Freeport, TX **ORDER FROM: NTIS-PB** 247 160/AS $7.75
660/2-75-022	1BB045	**Kinetic Model for Orthophosphate Reactions in Mineral Soils --- Abstracted 600/9-75-001c** --BY C. G. Enfield, and B. E. Bledsoe, Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK **ORDER FROM: NTIS-PB** 247 143/AS $6.00
660/2-75-023		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/2-75-024	1BB037	**Taxonomy of Klebsiella pneumoniae Isolated From Pulp/Paper Mill Wastewater --- Abstracted 600/9-75-001c** --BY M. D. Knittel, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 244 405/AS $3.75
660/2-75-025	1BB036	**Chemical Coagulation/Mixed Media Filtration of Aerated Lagoon --- Abstracted 600/9-75-001c** --BY J. F. Grutsch, R. C. Mallatt, and A. W. Peters, American Oil Company Yorktown, VA **ORDER FROM: NTIS-PB** 247 148/AS $5.50
660/2-75-026	1BB045	**Water Quality Control Through a Single Crop Agriculture, No. 4 --- Abstracted 600/9-75-001c** --BY K. R. Lundberg, and P. T. Trihey, Bemidji State College Bemidji, MN **ORDER FROM: NTIS-PB** 247 617/AS $6.00
660/2-75-027	1BB392	**Turbulent Bed Cooling Tower --- Abstracted 600/9-75-001c** --BY R. G. Barile, Purdue University West Lafayette, IN **ORDER FROM: NTIS-PB** 245 840/AS $3.75
660/2-75-028	1BB037	**Organic Compounds in Pulp Mill Lagoon Discharge --- Abstracted 600/9-75-001c** --BY F. F. Hrutfiord, T. S. Friberg, D. F. Wilson, and J. R. Wilson, Washington, University of Seattle, WA **ORDER FROM: NTIS-PB** 246 900/AS $4.50
660/3-73-001	1BA031	**Weed Harvest and Lake Nutrient Dynamics** BY J. K. Neel, S. A. Peterson, and W. L. Smith, North Dakota University of Grand Forks, ND **ORDER FROM: GPO-**EP1.23: 660/3-73-001 $2.35 **NTIS-PB** 224 492/AS
660/3-73-002	1BA031	**Nitrogen Sources and Cycling in Natural Waters** BY P. L. Brezonik, Florida, University of Gainesville, FL **ORDER FROM: GPO-**EP1.23: 660/3-73-002 $2.35 $4.25 **NTIS-PB** 224 491/AS
660/3-73-003	1BA031	**Organic Nutrient Factors Effecting Algal Growths** BY N. L. Clesceri, Rensselaer Polytechnic Institute Troy, NY **ORDER FROM: GPO-**EP1.23: 660/3-73-003 $2.80 **NTIS-PB** 226 874/AS
660/3-73-004	1BA02	**Water Quality Requirements of Aquatic Insects** BY A. R. Gaufin, Utah, University of Salt Lake City, UT **ORDER FROM: GPO-**EP1.23: 660/3-73-004 $1.20 **NTIS-PB** 228 582/AS
660/3-73-005	1BA025	**Oxidation of Organic Matter in Sediments** BY M. M. Pamatmat, Auburn University Auburn, AL BY R. S. Jones, H. Sanborn, and A. Bhagwat, Washington, University of Seattle, WA **ORDER FROM: GPO-**EP1.23: 660/3-73-005 $1.30 **NTIS-PB** 231 248/AS
660/3-73-006	1BA031	**Development of a Selective Algaecide to Control Nuisance Algal Growth** BY B. L. Pows, and W. F. McIlhenny, Dow Chemical Company Freeport, TX **ORDER FROM: GPO-**EP1.23: 660/3-73-006 $1.50 **NTIS-PB** 225 027/2AS
660/3-73-007	1BA023	**Effects of Protozoa on the Fate of Particulate Carbon** BY H. W. Holm, and F. A. Smith, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23: 660/3-73-007 $0.70 **NTIS-PB** 225 143/7AS
660/3-73-008	1BA023	**Biological Models of Freshwater Communities** BY F. B. Taub, Washington, University of Seattle, WA **ORDER FROM: GPO-**EP1.23: 660/3-73-008 $1.05 **NTIS-PB** 225 029/8AS
660/3-73-009	1BA023	**Dynamic Water Quality Forecasting and Management** BY D. J. O'Connor, R. V. Thomann, and D. M. Ditoro, Manhattan College Bronx, NY **ORDER FROM: GPO-**EP1.23: 660/3-73-009 $2.05 **NTIS-PB** 225 048/8AS

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/3-73-010	1BA025	**Dispersion in Hydrologic and Coastal Environments** BY N. G. Brooks, California Institute of Technology Pasadena, CA **ORDER FROM: GPO-**EP1.23: 660/3-73-010 $1.55 **NTIS-PB** 226 890
660/3-73-011	1BA023	**Big Eddies and Mixing Processes in the Great Lakes** BY G. T. Csanady, Waterloo, University of Waterloo, Ontario, Canada **ORDER FROM: GPO-**EP1.23: 660/3-73-011 $0.50 **NTIS-PB** 246 754/AS $3.50
660/3-73-012	1BA023	**Chemistry of Organmercurials in Aquatic Systems** BY G. L. Baugham, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23: 660/3-73-012 $1.30 **NTIS-PB** 226 889/AS
660/3-73-013	1BA025	**Petroleum Weathering: Some Pathways, Fate and Disposition on Marine Waters** BY M. H. Feldman, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 227 278 $3.75
660/3-73-014	1BA025	**Puget Sound Oceanographic Field Studies Data Report, Everett, BELLINGHAM, Port Angeles, 1962-63** BY R. J. Callaway, J. Vlastelicia, and G. R. Ditsworth, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM:** R. J. Calloway, 503 752-4211, X-369
660/3-73-015	1BA031	**Effect of Phosphorus Removal Processes on Algal Growth** BY J. Scherifig, P. S. Dixon, R. Appleman, and C. A. Justice, California, University of Irvaine, CA **ORDER FROM: GPO-**EP1.23: 660/3-73-015 $1.20 **NTIS-PB** 228 585/AS
660/3-73-016	1BA021	**Studies on Southeastern Aquatic Insects** BY J. B. Wallace, Georgia, University of Athens, GA **ORDER FROM: NTIS-PB** 232 183/AS $5.75
660/3-73-017	1BA021	**Pollution Effects on Adult Steelhead Migration in the Snake River** BY C. M. Falter, and R. R. Ringe, Idaho, University of Moscow, ID **ORDER FROM: GPO-**EP1.23: 660/3-73-017 $1.50 **NTIS-PB** 232 990
660/3-73-018	1BA022	**Effects of Crude Oil and Some of Its Components on Young Coho and Sockeye Salmon** BY J. E. Morrow, Alaska, University of Fairbanks, AK **ORDER FROM: GPO-**EP1.23: 660/3-73-018 $0.85 **NTIS-PB** 232 094/AS
660/3-73-019	1BA021	**Early Life History and Feeding of Young Mountain Whitefish** BY C. B. Stalnaker, and R. E. Gresswell, Utah State University Logan, UT **ORDER FROM: GPO-**EP1.23: 660/3-73-019 $0.95 **NTIS-PB** 232 992
660/3-73-020	1BA021	**Effects of Temperature on Diseases of Salmonid Fishes** BY J. L. Fryer, and K. S. Pilcher, Oregon State University Corvallis, OR **ORDER FROM: GPO-**EP1.23: 660/3-73-020 $1.55 **NTIS-PB** 232 988
660/3-73-021	1BA026	**First Annual Reports of EPA Grants Funded for IFYGL** Grosse Ile Laboratory, EPA Grosse Ile, MI **ORDER FROM: NTIS-PB** 235 947/AS $20.75
660/3-73-022	1BA023	**Review of the Physiological Impact of Mercurials** BY M. C. Ferens, Georgia, University of Athens, GA **ORDER FROM: GPO-**EP1.23: 660/3-73-022 $1.00 **NTIS-PB** 234 644 $4.25
660/3-73-023	1BA031	**Applications of Growth and Sorption Algal Assays** BY G. P. Fitzgerald, and P. D. Uttormark, Wisconsin, University of Madison, WI **ORDER FROM: GPO-**EP1.23: 660/3-73-023 $2.10 **NTIS-PB** 232 446/AS
660/3-73-024	1BA031	**Protocol for Evaluating the Nitrogen Status of Lake Sediments** BY D. R. Keeney, Wisconsin, University of Madison, WI **ORDER FROM: GPO-**EP1.23: 660/3-73-024 $0.65 **NTIS-PB** 233 138
660/3-73-025	1BA023	**NTA and Mercury in Artificial Stream Systems** BY H. J. Kania, and R. J. Beyers, Georgia, University of Athens, GA **ORDER FROM: GPO-**EP1.23: 660/3-73-025 $0.70 **NTIS-PB** 234 459
660/3-74-001		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/3-74-002	1BA023	**Pesticides in the Illinois Waters of Lake Michigan** BY R. A. Schacht, Illinois Environmental Protection Agency Chicago, IL **ORDER FROM: GPO-**EP1.23: 660/3-74-002 $1.25 **NTIS-PB** 245 150/AS $4.25
660/3-74-003	1BA022	**Biologically Allowable Thermal Pollution Limits, Parts I and II** BY W. Drost-Hansen, and A. Thorhaug, Miami, University of Coral Gables, FL **ORDER FROM: GPO-**EP1.23: 660/3-74-003 $1.20 **NTIS-PB** 235 715/AS $3.20
660/3-74-004a	1BA025	**Turbulent Diffusion in Liquid Jets: Part I** BY C. H. Tinsley, W. S. Stevenson, and V. W. Goldschmidt, Purdue University Lafayette, IN **ORDER FROM: GPO-**EP1.23: 660/3-74-004a $1.15 **NTIS-PB** 234 170
660/3-74-004b	1BA025	**Turbulent Diffusion in Liquid Jets: Final Report** BY S. C. Chaung, and V. W. Goldschmidt, Purdue University Lafayette, IN **ORDER FROM: GPO-**EP1.23: 660/3-74-004b $1.70 **NTIS-PB** 234 171
660/3-74-005		**(No. Cancelled) ORDER FROM:** (No. Cancelled)

BIBLIOGRAPHIC SECTION

REPORT NO.

660/3-74-006 1BA021 **Culturing and Ecology of Diaptomus Clavipes and Cyclops Vernalis** BY A. Robertson, C. W. Gehrs, B. D. Hardin, and G. W. Hunt, Oklahoma, University of Norman, OK **ORDER FROM: GPO-**EP1.23: 660/3-74-006 $2.55 **NTIS-PB** 234 613/AS

660/3-74-007 1BA031 **Biological Control of Aquatic Vegetation** BY T. Sturrock, Florida Atlantic University Boca Raton, FL **ORDER FROM: NTIS-PB** 238 909/AS $5.25

660/3-74-008 1BA021 **Low Winter Dissolved Oxygen in Some Alaskan Rivers** Arctic Environmental Research Laboratory, EPA College, AK **ORDER FROM: GPO-**EP1.23: 660/3-74-008 $.80 **NTIS-PB** 234 443

660/3-74-009 1BA021 **Environmental Guidelines for Development Roads in the Subarctic** BY F. B. Lotspeich, Arctic Environmental Research Laboratory, EPA College, AK BY A. E. Helmers, U.S. Forest Service Fairbanks, AK **ORDER FROM: GPO-**EP1.23/2:660/3-74-009 $1.15 **NTIS-PB** 235 932/AS

660/3-74-010 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

660/3-74-011 1AA006 **Bio-Environmental Impact of Air Pollution from Fossil Fuel Power Plants** National Ecological Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23: 660/3-74-011 $0.75 **NTIS-PB** 237 720/AS $3.50

660/3-74-012 1AA006 **Heavy Metal Accumulation in Soil and Vegetation From Smelter Emissions** BY H. C. Ratsch, National Ecological Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23: 660/3-74-012 $0.80 **NTIS-PB** 237 719/AS

660/3-74-013 1EA077 **Theoretical Model and Solubility Characteristics of Aroclor R 1254 in Water: Problems Associated with Low-Solubility Compounds in Aquatic Toxicity Test --- Abstracted 600/9-75-001a** --BY W. P. Schoor, Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL **ORDER FROM: NTIS-PB** 240 550/AS $3.75

660/3-74-014 1BA032 **Studies on Effects of Thermal Pollution in Biscayne Bay in Florida** BY M. Roessler, and D. C. Jabb, Rosenstiel School of Marine and Atmospheric Science, University of Miami Miami, FL **ORDER FROM: GPO-**EP1.23: 660/3-74-014 $2.25 **NTIS-PB** 239 328/AS

660/3-74-015 1BA031 **Sediments and Sediment-Water Nutrient Interchanges in Upper Klamath Lake, Oregon** BY A. R. Gahler, C. F. Powers, and W. D. Sanville, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23: 660/3-74-015 $1.10 **NTIS-PB** 238 470/AS

660/3-74-016 1BA025 **Significance and Control of Waste Water Floatables in Coastal Waters** BY R. E. Selleck, L. Bricewell, and R. Caster, California, University of Berkeley, CA **ORDER FROM: GPO-**EP1.23: 660/3-74-016 $2.00 **NTIS-PB** 239 938 $5.75

660/3-74-017 1BA031 **Silt Removal From a Lake Bottom --- Abstracted 600/9-75-001a** --Lake Herman Development Associates, Inc. Madison, SD **ORDER FROM: NTIS-PB** 241 250 $3.75

660/3-74-018 1AA006 **Sulfur Content of Douglas Fir Foliage Near a Paper Mill** BY H. C. Ratsch, National Ecological Research Laboratory, EPA Corvallis, OR **ORDER FROM: GPO-**EP1.23: 660/3-74-018 $0.65 **NTIS-PB** 237 755/AS

660/3-74-019 1BA031 **Research and Development of a Selective Algaecide to Control Nuisance Algal Growth-Phase III** BY W. F. McIlhenny, Dow Chemical Company Freeport, TX **ORDER FROM: GPO-**EP1.23: 660/3-74-019 $2.95 **NTIS-PB** 238 487/AS

660/3-74-020 1BA031 **Estimating Nutrient Loadings of Lakes from Non-Point Sources** BY P. D. Uttormark, Wisconsin, University of Madison, WI **ORDER FROM: GPO-**EP1.23: 660/3-74-020 $1.90 **NTIS-PB** 238 355/AS $3.90

660/3-74-021 1BA023 **Mercury in the Aquatic Systems: Metholation, OxidationReduction; in Bio Accumulation** BY H. W. Holm, and M. F. Cox, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: GPO-**EP1.23: 660/3-74-021 $1.05 **NTIS-PB** 239 329/AS

660/3-74-022 1BA031 **An Investigation of Ion Removed From Water and Wastewater** BY R. J. Starkey, General Electric Company Philadelphia, PA **ORDER FROM: GPO-**EP1.23: 660/3-74-022 $1.95 **NTIS-PB** 240 158/AS $5.75

660/3-74-023 1BA031 **Limnological Studies of Flat-head, Montana: A Status Report** BY A. R. Gaufin, G. W. Prescott, and J. F. Tibbs, Montana, University of Missoula, MT **ORDER FROM:** Pending

660/3-74-024 1EA487 **Conceptual Model for the Movement of Pesticides Through the Environment** BY J. W. Gillett, J. Hill IV, and A. W. Jaryinen, National Ecological Research Laboratory, EPA Corvallis, OR BY W. P. Schoor, Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL **ORDER FROM: NTIS-PB** 238 653/AS $4.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/3-74-025	1BA023	**Fate of Select Pesticides in the Aquatic Environment** BY J. R. Sanborn, Illinois, University of, Illinois Natural History Survey Urbana, IL **ORDER FROM: GPO-**EP1.23: 660/3-74-025 **$1.55 NTIS-PB** 239 749/AS
660/3-74-026	1BA022	**Development of Sample Preparation Methods for Development of Marine Organisms** BY H. C. McKee, and D. S. Tarazi, Southwest Research Institute Houston, TX **ORDER FROM: GPO-**EP1.23: 660/3-74-026 **$1.05 NTIS-PB** 234 201 **$3.75**
660/3-74-027	1BA022	**Pharmacokinetics of Toxic Elements in Rainbow Trout** BY E. J. Massaro, New York, University of Buffalo, NY **ORDER FROM: NTIS-PB** 242 124/AS **$3.75**
660/3-74-028	1BA026	**Cladophora Distribution in Lake Ontario (IFYGL) --- Abstracted 600/9-75-001a** --BY C. T. Wezernak, D. R. Lezenga, and F. C. Polcyn, Environmental Research Institute of Michigan Ypsilanti, MI **ORDER FROM: NTIS-PB** 240 307/AS **$4.75**
660/3-74-029	1BA026	**Future Dredging Quantities in the Great Lakes --- Abstracted 600/9-75-001a** --BY C. N. Raphael, E. Jaworski, C. Ojala, and D. S. Turner, Eastern Michigan University Ypsilanti, MI **ORDER FROM: NTIS-PB** 240 741/AS **$7.50**
660/3-74-030		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/3-74-031	1BA022	**Environmental Requirements of Selected Estuarine Ciliated Protozoa --- Abstracted 600/9-75-001b** --BY A. C. Borror, New Hampshire, University of Durham, NH **ORDER FROM: NTIS-PB** 242 125/AS **$4.25**
660/3-74-032	1BA031	**Nutrient Inactivation As A Lake Restoration Procedure — I. Laboratory Investigations** BY S. A. Peterson, W. D. Sanville, F. S. Stay, and C. F. Powers, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 239 969/AS **$5.75**
660/3-74-033	1BA024	**Salt Water Detection in the Cimarron Terrace, Oklahoma --- Abstracted 600/9-75-001a** --Oklahoma Water Resources Board Oklahoma City, OK **ORDER FROM: NTIS-PB** 242 269/AS **$7.00**
660/3-74-034	1BA031	**Eutrophication of Lake Tahoe Emphasizing Water Quality** BY C. R. Goldman, California, University of Davis, CA **ORDER FROM: NTIS-PB** 240 318/AS **$11.25**
660/3-75-001	1EA077	**Impact of the Use of Microorganisms on the Aquatic Environment --- Abstracted 600/9-75-001a** --BY D. G. Ahearn, Georgia State University Atlanta, GA BY A. W. Bourquin, Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL BY S. P. Meyers, Louisiana State University Baton Rouge, LA **ORDER FROM: NTIS-PB** 240 159/AS **$8.50**
660/3-75-002	1BA032	**Effect of Meteorological Variables on Temperature Changes in Flowing Streams --- Abstracted 600/9-75-001a** --BY R. W. Troxler, and E. L. Thackston, Vanderbilt University Nashville, TN **ORDER FROM: NTIS-PB** 240 285/AS **$4.75**
660/3-75-003	1BA031	**Eutrophication of Surface Waters---Lake Tahoe's Indian Creek Reservoir --- Abstracted 600/9-75-001a** --- Lake Tahoe Area Council South Lake Tahoe, CA **ORDER FROM: NTIS-PB** 240 725/AS **$7.00**
660/3-75-004	1BA026	**Phytoplankton Composition and Abundance in Lake Ontario During IFYGL --- Abstracted 600/9-75-001a** -- BY E. F. Stoermer, M. M. Bowman, J. C. Kingston, and A. L. Schaedel, Michigan, University of Ann Arbor, MI **ORDER FROM: NTIS-PB** 241 009/AS **$10.25**
660/3-75-005	1BA026	**Mathematical Modeling of Phytoplankton in Lake Ontario --- Abstracted 600/9-75-001a** --BY R. V. Thomann, R. P. Winfield, and D. M. DiToro, Manhattan College Bronx, NY **ORDER FROM: NTIS-PB** 241 046/AS **$7.00**
660/3-75-006	1BA026	**Phosphorus Uptake and Release by Lake Ontario Sediments --- Abstracted 600/9-75-001a** --BY R. T. Bannerman, D. E. Armstrong, R. F. Harris, and G. C. Holdren, Wisconsin, University of Madison, WI **ORDER FROM: NTIS-PB** 240 614/AS **$4.25**
660/3-75-007	1BA023	**Microbial Degradation and Accumulation of Pesticides in Aquatic Systems** BY D. F. Paris, D. L. Lewis, Jr., J. T Barnett, and G. L. Baughman, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 241 293/AS **$4.25**
660/3-75-008	1BA031	**Marine Algal Assay Procedure Bottle Test --- Abstracted 600/9-75-001a** --National Environmental Research Center, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 239 709/AS **$4.25**

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/3–75–009	1BA021	**Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians --- Abstracted 600/9–75–001a** --National Water Quality Laboratory, EPA Duluth, MN **ORDER FROM: NTIS-PB** 242 105/AS $4.25
660/3–75–010	1BA021	**Studies to Determine Methods for Culturing Three Freshwater Zooplankton Species --- Abstracted 600/9–75–001a** --BY D. B. Martin, and J. F. Novotny, U.S. Fish and Wildlife Service Yankton, SD **ORDER FROM: NTIS-PB** 242 764/AS $3.75
660/3–75–011	1BA021	**Acquisition and Culture of Research Fish --- Abstracted 600/9–75–001a** --BY J. L. Brauhn, and R. A. Schoettger, U.S. Department of the Interior Columbia, MO **ORDER FROM: NTIS-PB** 243 012/AS $4.25
660/3–75–012	1BA023	**Modeling Dynamics of Biological and Chemical Components of Aquatic Ecosystems --- Abstracted 600/9–75–001a** --BY R. R. Lassiter, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 246 901/AS $4.50
660/3–75–013	1BA025	**Analysis of the Dynamics of DDT in Marine Sediments --- Abstracted 600/9–75–001a** --BY J. H. Phillips, E. E. Haderlie, and W. L. Lee, Stanford University Pacific Grove, CA **ORDER FROM: NTIS-PB** 238 511/AS $5.25
660/3–75–014	1BA032	**Flow Establishment and Initial Entrainment of Heated Water Surface Jets --- Abstracted 600/9–75–001a** --- BY H. Stefan, L. Bergstedt, and E. Mrosla, Minnesota, University of Minneapolis, MN **ORDER FROM: NTIS-PB** 243 744/AS $6.25
660/3–75–015	1EA077	**Effects of Mirex and Methoxychlor on Striped Mullet, Mugil cephalus L. --- Abstracted 600/9–75–001a** --BY C. E. Nash, and J. R. Sylvester, Oceanic Foundation Waimanalo, HI **ORDER FROM: NTIS-PB** 241 635/AS $3.75
660/3–75–016	1BA022	**Toxicity of Selected Pesticides to the Bay Mussel (Mytilus edulis) --- Abstracted 600/9–75–001b** --BY D. H. Liu, and J. M. Lee, Stanford Research Institute Menlo Park, CA **ORDER FROM: NTIS-PB** 243 221/AS $5.75
660/3–75–017	1BA021	**Temperature Effects on Eggs and Fry of Percoid Fishes --- Abstracted 600/9–75–001b** --BY L. L. Smith Jr., and W. M. Koenst, Minnesota, University of St. Paul, MN **ORDER FROM: NTIS-PB** 242 746/AS $5.25
660/3–75–018	1BA024	**Ground-Water Pollution Problems in the Northwestern United States --- Abstracted 600/9–75–001b** --BY F. Van der Leeden, L. A. Cerrillo, and D. W. Miller, Geraghty and Miller, Inc. Port Washington, NY **ORDER FROM: NTIS-PB** 242 860/AS $10.25
660/3–75–019	1BA021	**Chena River—A Study of a Subarctic Stream --- Abstracted 600/9–75–001b** --BY P. J. Frey, E. W. Mueller, and E. C. Berry, Arctic Environmental Research Laboratory, EPA College, AK **ORDER FROM: NTIS-PB** 197 857 $7.00
660/3–75–020	1BA021	**Effects of Forest Fires on Water Quality in Interior Alaska --- Abstracted 600/9–75–001b** --BY F. B. Lotspeich, E. W. Mueller, and P. J. Frey, Arctic Environmental Research Laboratory, EPA College, AK **ORDER FROM: NTIS-PB** 241 922/AS $5.25
660/3–75–021	1BA026	**Zooplankton Production in Lake Ontario as Influenced by Environmental Perturbations --- Abstracted 600/9–75–001c** --BY D. C. McNaught, M. Buzzard, and S. Levine, New York, State University of Albany, NY **ORDER FROM: NTIS-PB** 244 414/AS $6.25
660/3–75–022	1BA026	**Chlorinated Hydrocarbons in the Lake Ontario Ecosystem (IFYGL) --- Abstracted 600/9–75–001b** --BY C. L. Haile, G. D. Veith, G. F. Lee, and W. C. Boyle, Wisconsin, University of Madison, WI **ORDER FROM: NTIS-PB** 243 364/AS $3.75
660/3–75–023		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/3–75–024	1EA077	**Effect of Mirex and Carbofuran on Estuarine Microorganisms --- Abstracted 600/9–75–001b** --BY L. R. Brown, E. G. Alley, and D. W. Cook, Mississippi State University Jackson, MS **ORDER FROM: NTIS-PB** 247 147/AS $4.50
660/3–75–025	1BA025	**Tidal Flats in Estuarine Water Quality Analysis --- Abstracted 600/9–75–001c** --BY D. A. Bella, Oregon State University Corvallis, OR **ORDER FROM: NTIS-PB** 248 196/AS $7.50
660/3–75–026	1BA022	**Environmental Studies of an Arctic Estuarine System --- Abstracted 600/9–75–001c** --BY V. Alexander, D. C. Burrell, J. Chang, R. T. Cooney, C. Coulon, J. J. Crane, J. A. Dygas, G. E. Hall, and P. J. Kinney, Alaska, University of Fairbanks, AK **ORDER FROM:** Pending
660/3–75–027	1BA031	**Nutritional Ecology of Nuisance Aquatic Plants --- Abstracted 600/9–75–001c** --BY G. C. Gerloff, Wisconsin, University of Madison, WI **ORDER FROM: NTIS-PB** 244 263/AS $4.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
660/3-75-028		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/3-75-029		**(No. Cancelled) ORDFR FROM:** (No. Cancelled)
660/3-75-030	1BA024	**Nitrogen in the Subsurface Environment --- Abstracted 600/9-75-001c** --BY M. L. Rowe, and S. Stinnett, Oklahoma State University Ada, OK **ORDER FROM:** Pending
660/3-75-031		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
660/3-75-032	1AA006	**Chemical/Biological Relationships Relevant to Ecological Effects of Acid Rainfall --- Abstracted 600/9-75-001c** --BY J. O. Reuss, National Ecological Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 244 409/AS $4.25
660/3-75-033	1BA031	**Lake Classification --- A Trophic Characterization of Wisconsin Lakes --- Abstracted 600/9-75-001c** --BY P. D. Uttormark, and J. P. Wall, Wisconsin, University of Madison, WI **ORDER FROM: NTIS-PB** 247 177/AS $6.75
660/3-75-034	1BA031	**Proceedings: Biostimulation-Nutrient Assessment Workshop --- Abstracted 600/9-75-001c** --Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 247 229/AS $9.75
660/3-75-035	1EA077	**Microbial-Malathion Interaction in Artificial Salt-Marsh Ecosystems: Effects and Degradation --- Abstracted 600/9-75-001c** --BY A. W. Bourquin, Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL **ORDER FROM: NTIS-PB** 246 251/AS $4.25
660/3-75-036	1AA006	**Some Effects of Cadmium on Coniferous Forest Soil/Litter Microcosms --- Abstracted 600/9-75-001c** --BY H. Bond, B. Lighthart, R. Shimabuku, and L. Russell, National Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 245 035/AS $3.75
660/3-75-037	1BA032	**Improving the Statistical Reliability of Stream Heat Assimilation Prediction --- Abstracted 600/9-75-001c** --BY R. W McLay, M. S. Hundal, and K. R. Lamborn, Richard McLay, Consulting Engineers Essex Junction, VT **ORDER FROM: NTIS-PB** 246 250/AS $6.25
660/3-75-038	1BA032	**Evaluation of Mathematical Models for Temperature Prediction in Deep Reservoirs --- Abstracted 600/9-75-001c** --BY F. L. Parker, B. A. Benedict, and C. Tsai, Vanderbilt University Nashville, TN **ORDER FROM: NTIS-PB** 246 576/AS $8.00
660/3-75-039	1BA032	**Analysis of Multiple Cell Mechanical Draft Cooling Towers --- Abstracted 600/9-75-001c** --BY L. R. Davis, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM: NTIS-PB** 244 807/AS $3.75
660/4-75-001	1BA027	**Determination of Molecular Hydrogen Sulfide --- Abstracted 600/9-75-001a** --BY T. B. Hoover, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 242 824/AS $3.75
660/4-75-002	1BA027	**Aqueous Odor Thresholds of Organic Pollutants in Industrial Effluents --- Abstracted 600/9-75-001a** --BY D. A. Lillard, and J. J. Powers, Georgia, University of Athens, GA **ORDER FROM: NTIS-PB** 242 734/AS $3.75
660/4-75-003	1BA027	**Isolating Organic Water Pollutants: XAD Resins, Urethane Foams, Solvent Extraction --- Abstracted 600/9-75-001c** --BY R. G. Webb, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 245 647/AS $3.75
660/4-75-004	1BA027	**Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY 74 --- Abstracted 600/9-75-001c** --BY A. L. Alford, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 247 056/AS $4.00
660/4-75-005	1BA027	**Analysis of Organic Compounds in Two Kraft Mill Wastewaters --- Abstracted 600/9-75-001c** --BY L. W. Keith, Southeast Environmental Research Laboratory, EPA Athens, GA **ORDER FROM: NTIS-PB** 247 698/AS $5.50
660/9-74-001	1RW103	**Bibliography of Publications and Reports of the Pacific Northwest Environmental Research Laboratory** BY B. McCauley, Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR **ORDER FROM:** Library, NERC-Corvallis, 200 S.W. 35th, Corvallis, OR 97330
660/9-74-002	1BB045	**Great Lakes Water Quality — Status of Pertinent EPA Research --- Abstracted 600/9-75-001a** --BY A. F. Bartsch, C. Frank, and S. Peterson, National Environmental Research Center, EPA Corvallis, OR **ORDER FROM:** NERC – Corvallis, 200 S. W. 35th, Corvallis, OR 97330

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/1-73-001		**670/1-73-001 thru 670/1-73-035 are Unassigned numbers and will remain Unassigned ORDER FROM:** (Unassigned)
670/1-73-036	1RA103	**Annual Report for Calendar Year 1972, Environmental Toxicology Research** National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM:** NERC, Cincinnati, OH 45268
670/1-74-001	1CA046	**Pricing for Water Supply: Its Impact on Systems Management** BY R. M. Clark, and H. C. Goddard, National Environmental Research Center, Program Coordination Staff Cincinnati, OH **ORDER FROM: NTIS-PB** 231 073/AS $3.25
670/1-75-001	1CA046	**Evaluation of Semipermeable Membranes for Concentration of Organic Contaminants in Drinking Water -- - Abstracted 600/9-75-001c** --BY I. Cabasso, C. S. Eyer, E. Klein, and J. K. Smith, Gulf South Research Institute New Orleans, LA **ORDER FROM: NTIS-PB** 243 245/AS $7.00
670/2-73-001	1DB064	**Physical, Chemical and Microbiological Methods of Solid Waste Testing** BY D. F. Bender, M. L. Peterson, and H. Stierli, Solid Waste Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 220 479 $6.75
670/2-73-002		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-003	1BA027	**Viruses in Waste Renovated and Other Viruses – 1972 Literature Abstracts** BY G. Berg, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM:** NERC-CINCINNATI, OHIO 45268
670/2-73-004		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-005	1DB314	**Utilization of Bark Waste** BY R. A. Currier, and M. L. Laver. Oregon State University, School of Forestry Corvallis, OR **ORDER FROM: NTIS-PB** 221 876 $7.00
670/2-73-006	1DB063	**Investigation of Corrosion Deposition Phenomena on Gas Turbine Blades** BY L. R. Fleischer, Westinghouse Research Laboratories Pittsburgh, PA **ORDER FROM: NTIS-PB** 221 095 $3.75
670/2-73-007		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-008		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-009	1DB314	**Biological Conversion of Animal Wastes to Nutrients** BY B. F. Miller, Colorado State University, Department of Avian Science Fort Collins, CO **ORDER FROM: NTIS-PB** 221 171 $4.75
670/2-73-010	1DB314	**Preparation and Evaluation of Activated Carbon Produced from Municipal Refuse** BY M. K. Stevenson, J. O. Leckie, and R. Eliassen. Stanford University, Department of Civil Engineering Stanford, CA **ORDER FROM: NTIS-PB** 221 172 $5.75
670/2-73-011	1DB314	**Acid Hydrolysis of Cellulose in Refuse to Sugar and Its Fermentation to Alcohol** BY A. O. Converse, H. E. Grethlein, S. Karandikar, and S. Kuhrtz, Dartmouth College Hanover, NH **ORDER FROM: NTIS-PB** 221 239 $5.25
670/2-73-012		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-013	1DB314	**Analysis of the Abandoned Automobile Problem** Booz-Allen Applied Research, Inc. Bethesda, MD **ORDER FROM: NTIS-PB** 221 879 $6.00
670/2-73-014	1DB311	**Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume I** Booz-Allen Applied Research, Inc. Bethesda, MD **ORDER FROM: NTIS-PB** 221 465 $10.60
670/2-73-015	1DB311	**Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume II** Booz-Allen Applied Research, Inc. Bethesda, MD **ORDER FROM: NTIS-PB** 221 466 $12.50
670/2-73-016	1DB311	**Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume III** Booz-Allen Applied Research, Inc. Bethesda, MD **ORDER FROM: NTIS-PB** 221 467 $10.60 Three Volume Set - PB 221 464 $21.00
670/2-73-017	1DB064	**Municipal Waste Disposal by Shipborne Incineration and Sea-Disposal of Residues** BY M. W. First, Harvard University School of Public Health Boston, MA **ORDER FROM: NTIS-PB** 221 684 $32.25
670/2-73-018		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-019		**(No. Cancelled) ORDER FROM:** (No. Cancelled)

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-020		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-021	1DB064	**Preventing Landfill Leachate Contamination of Water** BY E. J. Wren, Gulf South Research Institute Baton Rouge, LA **ORDER FROM: NTIS-PB** 222 468 $5.25
670/2-73-022	1BB043	**Evaluation of the Bio-Disc Treatment Process for Summer Camp Application** BY W. A. Sack, and S. A. Phillips, West Virginia University Morgantown, VA **ORDER FROM: GPO-**EP1.23/2:670/2-73-022 $1.05 **NTIS-PB** 225 126/2AS
670/2-73-023	1DB063	**Incineration of Bulky Refuse Without Prior Shredding** BY E. L. Kaiser, New York University, School of Engineering and Science, Department of Chemical Engineering Bronx, NY **ORDER FROM: NTIS-PB** 221 731 $4.75
670/2-73-024	1BB033	**Instream Aeration to Control Dissolved Sulfide in Sanitary Sewers** BY R. L. Conden Jr., De Laureal Engineers, Inc. New Orleans, LA **ORDER FROM: NTIS-PB** 223 342 $4.75
670/2-73-025	1DB063	**Recirculating Waste System for Swine Units** BY J. R. Miner, Iowa State University, Department of Agricultural Engineering Ames, IA **ORDER FROM: NTIS-PB** 221 621 $14.50
670/2-73-026		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-027	1BB043	**Rotating Biological Disk Wastewater Treatment Process – Pilot Plant Evaluation** BY W. N. Torpey, H. Heukelekian, and A. J. Kaplovsky, Rutgers University New Brunswick, NJ **ORDER FROM: NTIS-PB** 232 133/AS $8.50
670/2-73-028		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-029	1BB043	**Disinfection of Sewage Effluents** BY F. W. Solls Jr., H. F. Mueller, and T. E. Larson, Illinois, University of, Illinois State Water Survey Urbana, IL **ORDER FROM: NTIS-PB** 222 355 $4.75
670/2-73-030	1DB314	**Radiolytic Hydrolysis of Cellulose** BY J. A. Kelly, Virginia, University of Charlottesville, VA **ORDER FROM: NTIS-PB** 221 877 $3.25
670/2-73-031	1BB043	**U-Tube Aeration** BY R. C. Mitchell, North American Rockwell Corporation Canoga Park, CA **ORDER FROM: GPO-**EP1.23/2:670/2-73-031 $2.00 **NTIS-PB** 228 127/AS
670/2-73-032	1DB063	**First Annual Progress Report on a Study of Corrosion in Municipal Incinerators** BY D. A. Vaughan, and P. D. Miller, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 221 851 $3.75
670/2-73-033	1BB043	**Hydrogen Peroxide Cures Filamentous Growth in Activated Sludge** BY C. A. Cole, J. B. Stamberg, and D. F. Bishop, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-033 $0.65 **NTIS-PB** 231 848
670/2-73-034	1DB311	**Wood Waste Reuse in Controlled Release Pesticides** BY G. G. Allan, Washington, University of Seattle, WA **ORDER FROM: NTIS-PB** 222 051 $4.85
670/2-73-035		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-036		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-037	1BB033	**Alum Addition to Activated Sludge With Tertiary Solids Removal** BY J. B. Stamberg, and D. F. Bishop, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-037 $0.65 **NTIS-PB** 225 028/0AS
670/2-73-038	1DB064	**Use of Domestic Waste Glass for Urban Paving** BY W. R. Malisch, D. E. Day, and B. G. Wixson, Missouri, University of, Department of Civil Engineering Rolla, MO **ORDER FROM: NTIS-PB** 222 052 $5.25
670/2-73-039	1DB314	**Pyrolysis of Solid Municipal Wastes** BY D. A. Hoffman, San Diego Utilities Department San Diego, CA **ORDER FROM: NTIS-PB** 222 015 $4.85
670/2-73-040	1BB043	**Nitrogen Removal By Ammonia Stripping** BY T. P. O'Farrell, D. F. Bishop, and A. H. Cassel, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-040 $0.65 **NTIS-PB** 231 371
670/2-73-041	1DB063	**Effect of Processing Poultry Manure on Disease Agents** BY J. R. Howes, C. F. Hall, and W. F. Krueger, Texas A&M University College Station, TX **ORDER FROM: NTIS-PB** 222 148 $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-042	1BB033	**Activated Sludge Process Using Pure Oxygen** BY E. A. Wilcox, and S. O. Akinbami, Union Carbide Corporation Tonawanda, NY **ORDER FROM: GPO-**EP1.23/2:670/2-73-042 $0.95 **NTIS-PB** 235 572/AS
670/2-73-043	1BB043	**Summary Report – Pilot Plant Studies on Dewatering Primary Digested Sludge** BY J. D. Parkhurst, Los Angles County Sanitation District Los Angeles, CA **ORDER FROM: GPO-**EP1.23/2:670/2-73-043 $2.10 **NTIS-PB** 224 798/AS
670/2-73-044	1BB043	**Mathematical Model for Post Aeration** BY R. Smith, R. G. Eilers, and E. D. Hall, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 222 031 $3.75
670/2-73-045	1BB043	**Mathematical Model for Aerobic Digestion** BY R. Smith, R. G. Eilers, and E. D. Hall, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 222 029 $3.75
670/2-73-046	1BB043	**Design and Simulation of Equalization Basins** BY R. Smith, R. G. Eilers, and E. D. Hall, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 222 000 $4.50
670/2-73-047a	1BB043	**Methods for Improvement of Trickling Filter Plant Performance, Part I – Mechanical and Biological Optima** BY J. C. Brown, North Carolina, University of Chapel Hill, NC **ORDER FROM: GPO-**EP1.23/2:670/2-73-047a $2.30 **NTIS-PB** 224 715/AS
670/2-73-047b		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-048	1DB063	**Hospital Solid Waste Disposal in Community Facilities** BY A. F. Iglar, and R. G. Bond, Minnesota, University of, Division of Environmental Health Minneapolis, MN **ORDER FROM: NTIS-PB** 222 018 $9.00
670/2-73-049	1DB063	**Combustion Products from the Incineration of Plastics** BY E. A. Boettner, G. Ball, and B. Weiss, Michigan, University of Ann Arbor, MI **ORDER FROM: NTIS-PB** 222 001 $6.25
670/2-73-050	1BB043	**200 MGD Activated Sludge Plant Removes Phosphorus by Pickle Liquor** BY R. D. Leary, Milwaukee, Sewerage Commission of the City of Milwaukee, WI **ORDER FROM: GPO-**EP1.23/2:670/2-73-050 $1.50 **NTIS-PB** 228 561/AS
670/2-73-051	1DB063	**Survival of Pathogens in Animal Manure Disposal** BY S. L. Diesch, B. S. Pomeroy, and E. R. Albred, Minnesota, University of St. Paul, MN **ORDER FROM: NTIS-PB** 222 337 $5.75
670/2-73-052	1DB314	**Nitrite-Accelerated Photochemical Degradation of Cellulose as a Pretreatment for Microbiological Conversion to Protein** BY A. Fookson, and G. Frohnsdorff, Gillette Research Institute Rockville, MD **ORDER FROM: NTIS-PB** 222 115 $5.25
670/2-73-053A	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I – Summary Report** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 580/AS $7.25
670/2-73-053A-P	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I thru Volume XVI** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 579-SET/AS $100.00 (entire 16 volume set)
670/2-73-053B	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume II – Toxicologic Summary** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 581/AS $7.50
670/2-73-053C	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume III – Disposal Process Discriptions: Ultimate Disposal Incineration, and Pyrolysis Processes** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 582/AS $8.50
670/2-73-053D	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volum IV – Disposal Process Descriptions: Biological and Miscellaneous Waste Treatment Processes** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 583/AS $5.75
670/2-73-053E	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume V – National Disposal Site Candidate Waste Stream Constituent Profile Reports – Pesticides and Cyanide Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 584/AS $5.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-053F	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VI – National Disposal Site Candidate Waste Stream Constituent Profile Report – Mercury, Arsenic, Chromium and Cadmium Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 585/AS $7.25
670/2-73-053G	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Propellants, Explosives, and Chemical Warfare Materiel** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 586/AS $8.75
670/2-73-053H	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VIII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Miscellaneous Inorganic and Organic Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 587/AS $4.75
670/2-73-053I	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume IX – National Disposal Site Candidate Waste Stream Constituent Profile Report – Radioactive Materials** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 588/AS $6.25
670/2-73-053J	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume X – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 589/AS $9.25
670/2-73-053K	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XI – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 590/AS $8.50
670/2-73-053L	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 591/AS $9.50
670/2-73-053M	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 592/AS $9.25
670/2-73-053N	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIV – Summary of Waste Origins, Forms and Quantities** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 593/AS $6.25
670/2-73-053O	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XV – Research and Development Plans** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 594/AS $5.25
670/2-73-053P	1DB311	**Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XVI – References** BY R. S. Ottinger, TRW Systems Group Redondo Beach, CA **ORDER FROM: NTIS-PB** 224 595/AS $11.25
670/2-73-054	1BB040	**Gas Requirements to Pressurize Abandoned Deep Mines** BY J. D. Robins, Pennsylvania, State of, Department of Environmental Resources Pittsburgh, PA Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA **ORDER FROM: GPO-**EP1.23/2:670/2-73-054 $2.00 **NTIS-PB** 224 831/6AS
670/2-73-055		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-056	1DB314	**Problems and Opportunities in Management of Combustible Solid Wastes** International Research and Technology Corporation Washington, DC **ORDER FROM: NTIS-PB** 222 467 $12.25
670/2-73-057	1DB063	**Study of Incinerator Residue Analysis of Water Soluble Components** BY R. J. Schoenberger, and P. W. Purdom, Drexel University, Environmental Engineering Program Philadelphia, PA **ORDER FROM: NTIS-PB** 222 458 $9.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-058	1BB033	**Ammonia Nitrogen Removal By Breakpoint Chlorination** BY T. A. Pressley, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-058 $0.95 **NTIS-PB** 231 378
670/2-73-059	1BB034	**Dual Functioning Swirl Combined Sewer Overflow Regulator/ Concentrator** BY R. Field, Edison Water Quality Laboratory, EPA Edison, NJ **ORDER FROM: GPO-**EP1.23/2:670/2-73-059 $2.20 **NTIS-PB** 227 18 3
670/2-73-060	1BB033	**Enhancing Trickling Filter Plant Performance By Chemical Precipitation** BY R. E. Derrington, D. H. Stevens, and J. E. Laughlin, Richardson, City of Richardson, TX **ORDER FROM: GPO-**EP1.23/2:670/2-73-060 $1.45 **NTIS-PB** 224 929/0AS
670/2-73-061	1DB064	**Thermophilic Aerobic Digestion of Organic Solid Wastes** BY J. F. Andrews, and K. Kambhu, Clemson University, Environmental Systems Engineering Department Clemson, NC **ORDER FROM: NTIS-PB** 222 396 $4.75
670/2-73-062	1BB043	**Sludge Conditioning Using SO_2 and Low Pressure for Production of Organic Feed Concentrate** BY M. S. Weinburg, Foster D. Snell, Inc. Florham Park, NJ **ORDER FROM: NTIS-PB** 223 343 $6.25
670/2-73-063	1DB064	**Composted Municipal Refuse as a Soil Amendment** BY C. C. Hortenstine, and D. F. Rothwell, Florida, University of Gainesville, FL **ORDER FROM: NTIS-PB** 222 422 $4.25
670/2-73-064	1BB043	**Pilot – Demonstration Project for Industrial Reuse of Renovated Municipal Wastewater** BY G. A. Horstkotte Jr., Walnut Creek Central Control Sanitary District Walnut Creek, CA **ORDER FROM: GPO-**EP1.23/2:670/2-73-064 $1.55 **NTIS-PB** 224 507/AS
670/2-73-065	1DB063	**Studies on Modifications of Solid Industrial Wastes** BY C. S. Gove, and C. M. Antoni, Syracuse University, Department of Civil Engineering Syracuse, NY **ORDER FROM: NTIS-PB** 222 419 $7.00
670/2-73-066	1DB314	**Study on Technical and Economic Feasibility of a Hydrogenation Process for Utilization of Waste Rubber** BY R. H. Walk, and C. A. Battista, Hydrocarbon Research, Inc. Trenton, NJ **ORDER FROM: NTIS-PB** 222 694 $6.25
670/2-73-067	1BB034	**Hypochlorination of Pollution Stormwater Pumpage at New Orleans** BY U. R. Pontuies, E. H. Pavia, and D. G. Crowder, Byrne Engineering Corporation New Orleans, LA **ORDER FROM: GPO-**EP1.23/2:670/2-73-067 $1.95 **NTIS-PB** 228 581/AS
670/2-73-068	1BB041	**Oil Recovery System Using Sorbent Material** BY G. D. Gumtz, and T. P. Meloy, Meloy Laboratories, Inc. Springfield, VA **ORDER FROM: GPO-**EP1.23/2:670/2-73-068 $4.00 **NTIS-PB** 229 576/AS
670/2-73-069	1BB041	**Fabric Boom Concept for Containment and Collection of Floating Oil** BY P. E. Bonz, Consultec, Inc. Rockville, MD **ORDER FROM: GPO-**EP1.23/2:670/2-73-069 $1.00 **NTIS-PB** 228 049/AS
670/2-73-070	1BB033	**Physical – Chemical Treatment of Raw Material Wastewater** BY D. F. Bishop, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-070 $1.05 **NTIS-PB** 231 250/AS
670/2-73-071	1BB034	**Utilization of Trickling Filters for Dual Treatment of Dry and Wet Weather Flows** BY P. Honack, K. L. Zippler, and E. C. Herkert, Elson T. Killam Associates, Inc. Milburn, NJ **ORDER FROM: GPO-**EP1.23/2:670/2-73-071 $1.50 **NTIS-PB** 231 251/AS
670/2-73-072	1DB063	**Pneumo-Slurry Pipeline Collection and Removal of Municipal Solid Waste** BY I. Zandi, Pennsylvania, University of, Towne School of Civil and Mechanical Engineering Philadelphia, PA **ORDER FROM: NTIS-PB** 223 162 $8.25
670/2-73-073	1BB043	**Activated Sludge Treatment Systems With Oxygen** BY J. B. Stanbery, D. F. Bishop, and A. B. Hais, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-073 $0.90 **NTIS-PB** 231 379
670/2-73-074	1BB043	**Study of Upflow Filter for Tertiary Treatment** BY J. E. Morrison, De Laureal Engineers, Inc. New Orleans, LA **ORDER FROM: GPO-**EP1.23/2:670/2-73-074 $5.25 **NTIS-PB** 223 354
670/2-73-075	1BB043	**Laboratory Ozonation of Municipal Wastewater** BY S. G. Roan, D. F. Bishop, and T. A. Pressley, D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC **ORDER FROM: GPO-**EP1.23/2:670/2-73-075 $0.85 **NTIS-PB** 231 380
670/2-73-076	1BB043	**Selective Nutrient Removal Secondary Effluent** BY J. L. Eisenmann, and J. D. Smith, Process Research, Inc. Cambridge, MA **ORDER FROM: GPO-**EP1.23/2:670/2-73-076 $1.75 **NTIS-PB** 228 108/AS

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-077	1BB034	**Combined Sewer Overflow Seminar Papers --- Abstracted 600/9-75-001a** --Edison Water Quality Laboratory, EPA Edison, NJ **ORDER FROM: GPO-**EP1.23/2:670/2-73-077 $2.20 **NTIS-PB** 231 836 $7.25
670/2-73-078	1BB041	**Treatment of Hazardous Material Spills With Floating Mass Transfer Media** BY B. W. Mercer, A. J. Shuckrow, and G. W. Dawson, Battelle Memorial Institute Richland, WA **ORDER FROM: GPO-**EP1.23/2:670/2-73-078 $1.25 **NTIS-PB** 228 050/AS
670/2-73-079	1BA027	**Atomic Absorption Analysis of Phosphates in Water** BY C. O. Hubber, Wisconsin, University of Milwaukee, WI **ORDER FROM: NTIS-PB** 223 338 $3.75
670/2-73-080	1BB040	**Removal of Heavy Metals from Mine Drainage by Precipitation** BY L. W. Ross, Denver, University of Denver, CO **ORDER FROM: GPO-**EP1.23/2:670/2-73-080 $1.00 **NTIS-PB** 228 584/AS
670/2-73-081	1BB040	**Laboratory Study of Self-Sealing Limestone Plugs for Mine Openings** BY R. G. Penose Jr., Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA BY I. Holuec, E.D. Appolonia Consulting Engineers, Inc. Pittsburgh, PA **ORDER FROM: GPO-**EP1.23/2:670/2-73-081 $2.25 **NTIS-PB** 228 586/AS
670/2-73-082	1BB043	**New Microbial Indicators of Wastewater Chlorination Efficiency** BY R. S. Englebrecht, D. H. Foster, E. D. Greening, and S. H. Lee, Illinois, University of Urbana, IL **ORDER FROM: GPO-**EP1.23/2:670/2-73-082 $1.15 **NTIS-PB** 234 169
670/2-73-083	1DB063	**Study of Institutional Solid Wastes** BY J. C. Burchinal, West Virginia University, Department of Civil Engineering Morgantown, WV **ORDER FROM: NTIS-PB** 223 345 $7.50
670/2-73-084	1BB041	**Oil Recovery System Utilizing Polyurethane Foam—A Feasibility Study** BY R. A. Cochran, J. P. Fraser, and D. P. Hemphill, Shell Development Company Houston, TX **ORDER FROM: GPO-**EP1.23/2:670/2-73-084 $2.35 **NTIS-PB** 231 838
670/2-73-085	1DB063	**Poultry Manure Disposal by Plow-Furrow-Cover** Rutgers University, College of Agriculture and Environmental Science New Brunswick, NJ **ORDER FROM: NTIS-PB** 223 430 $5.50
670/2-73-086	1DB311	**Public Attitudes Toward Hazardous Waste Disposal Facilities** BY L. L. Lackey, T. O. Jacobs, and S. R. Stewart, Human Resources Research Organization Columbus, GA **ORDER FROM: NTIS-PB** 223 638/AS $7.00
670/2-73-087	1DB063	**Incineration of Plastics Found in Municipal Wastes** BY R. W. Heimburg, Syracuse University Research Corporation Syracuse, NY **ORDER FROM: NTIS-PB** 223 651/AS $7.50
670/2-73-088	1BB038	**Demonstration of a Non-Aqueous Sewage Disposal System** BY F. L. Matthew, and E. E. Neshein, Black Hill Conservancy Sub-District Rapid City, SD **ORDER FROM: GPO-**EP1.23/2:670/2-73-088 $1.60 **NTIS-PB** 231 338/AS
670/2-73-089A	1DB063	**Design and Control of Incinerators, Volume I** BY A. F. Sarofim, Massachusetts Institute of Technology, Chemical Engineering Department Cambridge, MA **ORDER FROM: NTIS-PB** 223 626/AS $7.00
670/2-73-089B	1DB063	**Design and Control of Incinerators, Volume II – Appendices** BY A. F. Sarofim, Massachusetts Institute of Technology, Chemical Engineering Department Cambridge, MA **ORDER FROM: NTIS-PB** 223 626/AS $6.50
670/2-73-090	1DB314	**Utilization of Fibrous Wastes as Sources of Nutrients** BY J. M. Leatherwood, North Carolina State University, Department of Animal Science Raleigh, NC **ORDER FROM: NTIS-PB** 223 625/AS $3.00
670/2-73-091	1DB314	**Metallurgical Upgrading of Automotive Scrap Steel** BY O. N. Carlson, and F. A. Schmidt, Ames Laboratory, U.S. Atomic Energy Commission, Metallurgy Division, Iowa State University Ames, IA **ORDER FROM: NTIS-PB** 223 740 $4.35
670/2-73-092	1BB040	**Abatement of Mine Drainage Pollution By Underground Precipitation** BY C. K. Stoddard, Ralph M. Parsons Company Los Angeles, CA **ORDER FROM: GPO-**EP1.23/2;670/2-73-092 $1.55 **NTIS-PB** 229 407/AS
670/2-73-093	1BB040	**Appraisal of Neutralization Processes to Treat Coal Mine Drainage** BY H. L. Lovell, Pennsylvania State University University Park, PA **ORDER FROM: GPO-**EP1.23/2:670/2-73-093 $3.50 **NTIS-PB** 231 249/AS
670/2-73-094		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-095	1DB314	**Single-Cell Protein From Waste Cellulose** BY C. D. Callihan, and C. E. Dunlap, Louisiana State Unversity, Department of Chemical Engineering Baton Rouge, LA **ORDER FROM: NTIS-PB** 223 873/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-73-096	1BB043	**BOD, Solids and Nutrient Removal By Foam Flotation** BY E. R. Becker, San Jose Public Works Department, City of San Jose, CA **ORDER FROM: NTIS-PB** 232 184/AS $4.75
670/2-73-097		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-098	1BB033	**Odors Emitted From Raw and Digested Sewage Sludge** BY B. A. Rains, M. J. De Primo, and J. L. Groseclose, St. Louis Sewer District, Metropolitan St. Louis, MO **ORDER FROM: GPO-**EP1.23/2:670/2-73-098 $1.15 **NTIS-PB** 232 369/AS
670/2-73-099	1BB041	**Investigation of Surface Films – Chesapeake Bay Entrance** BY W. G. MacIntyre, C. L. Smith, and J. C. Munday, Virginia Institute of Marine Science Gloucester Point, VA **ORDER FROM: GPO-**EP1.23/2:670/2-73-099 $2.05 **NTIS-PB** 232 968/AS
670/2-73-100	1BB040	**Applications of Reverse Osmosis to Acid Mine Drainage Treatment** BY R. C. Wilmoth, Crown Mine Drainage Control Field Site, EPA Rivesville, WV **ORDER FROM: GPO-**EP1.23/2:670/2-73-100 $2.00 **NTIS-PB** 232 449/AS
670/2-73-101		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-102		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-73-103	1BB043	**Ferric Chloride and Organic Polyelectrolytes for the Removal of Phosphorus** BY O. Green, D. Van Dam, B. LaBeau, T. L. Campbell, and S. L. Daniels, Grand Rapids, City of Grand Rapids, MI **ORDER FROM: GPO-**EP1.23/2:670/2-73-103 $1.55 **NTIS-PB** 239 866/AS $5.25
670/2-73-104	1BB043	**Selected Abstracts for Instrumentation and Automation of Wastewater Facilities** BY A. E. Molvar, and J. F. Roesler, Raytheon Company, Environmental Systems Center Portsmouth, RI **ORDER FROM: NTIS-PB** 225 520/6AS $7.00
670/2-74-001	1BB040	**Carbonate Bonding of Taconite Tailings** BY P. J. La Rosa, K. A. Ricciardella, and R. J. McGarvey, Applied Technology Corporation Pittsburgh, PA **ORDER FROM: GPO-**EP1.23/2:670/2-74-001 $1.00 **NTIS-PB** 232 370/AS
670/2-74-002	1BB040	**Feasibility Study of a New Surface Mining Method "Longwall Stripping"** BY H. F. Moomau, F. R. Zachar, and J. W. Leonard, Potomac Engineering and Surveying Petersburg, WV **ORDER FROM: GPO-**EP1.23/2:670/2-74-002 $1.15 **NTIS-PB** 233 146/AS
670/2-74-003	1BB040	**Mine Drainage Pollution Control Demonstration Grant Procedures and Requirement — Abstracted 600/9-75-001a** —BY F. J. Zaval, and R. Burns, Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA **ORDER FROM: NTIS-PB** 240 692/AS $5.25
670/2-74-004	1BB043	**Optimization and Design of an Oil/Activated Sludge Concentration Process** BY T. M. Rosenblatt, Esso Research and Engineering Company Linden, NJ **ORDER FROM: GPO-**EP1.23/2:670/2-74-004 $1.40 **NTIS-PB** 234 173
670/2-74-005	1BB043	**Fate and Effects of Trace Elements in Sewage Sludge When Applied to Agricultural Lands: A Literature Review Study** BY A. L. Page, California, University of Riverside, CA **ORDER FROM: NTIS-PB** 231 171/AS $4.50
670/2-74-006	1BB043	**Costs of Filter Pressing Domestic Sewage Sludges** BY W. F. McMichael, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 226 130/AS $3.75
670/2-74-007	1DB064	**Physical, Chemical and Microbiological Methods of Solid Waste Testing: Four Additional Procedures** BY N. S. Ulmer, Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 231 203/AS $3.75
670/2-74-008	1BB036	**Metallic Recovery From Waste Waters Utilizing Cementation** BY O. P. Case, Anaconda American Brass Company Waterbury, CT **ORDER FROM: GPO-**EP1.23/2:670/2-74-008 $.85
670/2-74-009	1BB040	**Analysis of Pollution Control Costs** BY F. J. Doyle, G. Bhatt, and J. R. Rapp, Michael Baker Jr., Inc. Beaver, PA **ORDER FROM: GPO-**EP1.23/2:670/2-74-009 $3.20 **NTIS-PB** 233 026 $10.50
670/2-74-010	1BB043	**Costs of Hauling and Land Spreading of Domestic Sewage Treatment Plant Sludge** BY W. F. McMichael, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 227 005/AS $4.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-74-011	1BB043	**Cost of Dissolved Air Flotation Thickening of Waste Activated Sludge at Municipal Sewage Treatment Plants** BY W. F. McMichael, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 226 582/AS $2.75
670/2-74-012	1BB043	**Adsorption from Aqueous Solution** BY W. J. Weber Jr., and P. J. Usinowicz, Michigan, University of, College of Engineering Ann Arbor, MI **ORDER FROM: NTIS-PB** 232 453/AS $15.00
670/2-74-013	1BB041	**State of Maryland Waste Oil Recovery and Reuse Program** BY E. J. Martin, and G. D. Gumtz, Environmental Quality Systems, Inc. Rockville, MD **ORDER FROM: GPO-**EP1.23/2:670/2-74-013 $2.70 **NTIS-PB** 234 446 $6.00
670/2-74-014	1DB314	**Scrap Rubber Tire Utilization in Road Dressings** BY B. G. Brand, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 232 559/AS $3.75
670/2-74-015	1DB314	**Chemical Conversion of Wood and Cellulosic Wastes** BY F. Shafizadeh, and C. McIntyre, Montana, University of, Wood Chemistry Laboratory Missoula, MT **ORDER FROM: NTIS-PB** 229 246 $6.00
670/2-74-016	1DB314	**Reclamation of Energy from Organic Waste** BY J. T. Pfeffer, Illinois, University of, Department of Civil Engineering Urbana, IL **ORDER FROM: NTIS-PB** 231 176/AS $4.75
670/2-74-017	1BB043	**Evaluation and Demonstration of the Capillary Suction Sludge Dewatering Device** BY T. E. Lippert, and M. C. Skriba, Westinghouse Electric Corporation, Research and Development Center Pittsburgh, PA **ORDER FROM: NTIS-PB** 232 358/AS $4.00
670/2-74-018	1BB043	**Bacterial Zoogloea Formation** BY R. F. Ung, and S. R. Farrah, Pennsylvania State University University Park, PA **ORDER FROM: NTIS-PB** 235 023 $4.00
670/2-74-019	1DB063	**Feasibility of Hydraulic Transport and Treatment of Ground Household Refuse Through Sewers** BY A. R. Guzdar, and S. S. Rhee, Foster-Miller Associates, Inc. Waltham, MA **ORDER FROM: NTIS-PB** 229 256/AS $14.25
670/2-74-020	1DB063	**Preliminary Design of a Household Refuse Grinder** BY A. T. Fisk, and A. R. Guzdar, Foster-Miller Associates, Inc. Waltham, MA **ORDER FROM: NTIS-PB** 239 914 $5.75
670/2-74-021	1DB063	**Feasibility of Hydraulic Transport of Ground Household Refuse Through Sewer Appurtenances** BY D. A. Monaghan, and A. R. Guzdar, Foster-Miller Associates, Inc. Waltham, MA **ORDER FROM: NTIS-PB** 239 915 $5.75
670/2-74-022	1BB034	**Computer Management of a Combined Sewer System** Seattle, Municipality of Metropolitan Seattle, WA **ORDER FROM: GPO-**EP1.23/2:670/2-74-022 $5.30 **NTIS-PB** 235 717/AS $8.30
670/2-74-023	1BB040	**Electrochemical Removal of Heavy Metals from Acid Mine Drainage** BY N. B. Franco, and R. A. Balouskus, Ecotrol, Inc. Columbia, MD **ORDER FROM: NTIS-PB** 232 764/AS $4.00
670/2-74-024A	1DB314	**Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume I – Technical Discussion** BY J. F. Foran, A. T. Heenan, and R. G. Schweikhardt, Resource Planning Institute Cambridge, MA **ORDER FROM: NTIS-PB** 229 816/AS $5.75
670/2-74-024B	1DB314	**Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume II – Appendices** BY J. F. Foran, A. T. Heenan, and R. G. Schweikhardt, Resource Planning Institute Cambridge, MA **ORDER FROM: NTIS-PB** 229 817/AS $4.00
670/2-74-025	1BB043	**Effect of Carbon to Nitrogen Ratio on Activated Sludge Subsidence and Dewatering Characteristics — Abstracted 600/9-75-001b** --BY A. Geinapolos, Envirex, Inc. Milwaukee, WI **ORDER FROM: NTIS-PB** 230 941 $5.75
670/2-74-026	1BB034	**SWIRL Concentrator as a Grit Separator Device** BY R. H. Sullivan, and M. M. Cohn, American Public Works Association Chicago, IL **ORDER FROM: NTIS-PB** 233 964/AS $4.50
670/2-74-027	1DB314	**Chemical Conversion of Solid Waste to Useful Products** BY J. F. Barbour, R. R. Groner, and V. H. Freed, Oregon State University Corvallis, OR **ORDER FROM: NTIS-PB** 233 178/AS $5.50
670/2-74-028		**(No. Cancelled) ORDER FROM:** (No Cancelled)
670/2-74-029		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-030	1BB036	**Waterborne Wastes of the Paint and Inorganic Pigments Industries** BY J. J. Barrett, G. A. Mornea, and J. J. Roden III, Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 232 019/AS $4.00

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-74-031	1DB314	**Infrared Spectral Sensor for Refuse Sorting** BY P. F. Winkler, Middlebury College, Physics Department Middlebury, VT **ORDER FROM: NTIS-PB** 229 901/AS $7.25
670/2-74-032	1BB043	**Role of Polyelectrolytes in Filtration Processes** BY C. R. O'Melia, North Carolina, University of Chapel Hill, NC **ORDER FROM:** NERC-Cincinnati, OH 45268
670/2-74-033	1BB034	**Manual for Deicing Chemical Storage and Handling** BY D. L. Richardson, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 236 152/AS $3.70
670/2-74-034	1BB043	**Off-the-Shelf Analyzers for Measuring Adenosine Triphosphate (ATP) in Activated Sludge** BY R. H. Wise, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 231 345/AS $3.00
670/2-74-035a	1DB314	**First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix A – A Linear Programming Approach for the Traveling Salesman Problem — Abstracted 600/9-75-001a** –BY M. Wathne, Illinois, University of Urbana, IL **ORDER FROM: NTIS-PB** 239 896/AS $4.25
670/2-74-035b	1DB314	**First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix B – Optimal Routing of Solid Waste Collection Vehicles — Abstracted 600/9-75-001a** –BY S. Hong, Illinois, University of Urbana, IL **ORDER FROM: NTIS-PB** 239 897/AS $5.25
670/2-74-036a	1DB314	**Routing of Solid Waste Collection Vehicles, Final Report: Appendix A – Manual for Use of the Computer Codes — Abstracted 600/9-75-001a** –BY J. C. Liebman, Illinois, University of Urbana, IL **ORDER FROM: NTIS-PB** 239 898/AS $4.25
670/2-74-036b	1DB314	**Routing of Solid Waste Collection Vehicles: Appendix B – A Heuristic Solution to the M-Postmen's Problem — Abstracted 600/9-75-001a** –BY J. W. Mole, Illinois, University of Urbana, IL **ORDER FROM: NTIS-PB** 239 899/AS $5.75
670/2-74-037	1DB064	**Economic Analysis of the Processing and Disposal of Refuse Sludges** BY P. Kos, P. M. Keier, and J. M. Joyce, Curran Associates, Inc. Northampton, MA **ORDER FROM: NTIS-PB** 234 498/AS $4.00
670/2-74-038	1DB064	**Wet Systems for Residential Refuse Collection: A Case Study for Springfield, Massachusetts** BY P. M. Meier, J. Kuhner, and R. E. Bolton, Curran Associates, Inc. Northampton, MA **ORDER FROM: NTIS-PB** 234 499/AS $5.75
670/2-74-039	1BB034	**Relationship Between Diameter and Height for the Design of a Swirl Concentrator as a Combined Sewer Overflow Regulator** BY R. H. Sullivan, and M. M. Cohn, American Public Works Association Chicago, IL **ORDER FROM: GPO-**EP1.23/2:670/2-74-039 $1.00 **NTIS-PB** 234 646/AS
670/2-74-040	1BB034	**Urban Stormwater Management and Technology: An Assessment** BY J. A. Lager, and W. G. Smith, Metcalf and Eddy, Inc. Palo Alto, CA **ORDER FROM: NTIS-PB** 240 687/AS $11.50
670/2-74-041		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-042	1BB036	**Waste Water Treatment and Reuse in a Metal Finishing Job Shop** S.K. Williams Company Wauwatosa, WI **ORDER FROM: NTIS-PB** 234 476/AS $3.75
670/2-74-043	1BB038	**Development and Evaluation Report: Physical Chemical Marine Sanitation System** BY J. M. Heeney, R. B. Neveril, E. K. Kurg, and G. A. Remus, General American Transportation Corporation Niles, IL **ORDER FROM: NTIS-PB** 231 846/AS $7.00
670/2-74-044	1BB036	**Ion Exchange Process for Recovery of Chromate from Pigment Manufacturing** BY D. Robinson, H. Weisberg, G. Chose, K. Libby Jr., and J. Capper, Mineral Pigments, Corporation Beltsville, MD **ORDER FROM: NTIS-PB** 233 641/AS $4.50
670/2-74-045	1BB034	**Manual for Deicer Chemical Application Practices** BY D. L. Richardson, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 239 694/AS $6.25
670/2-74-046	1BB043	**On-Line Colorimetric Analyzers for Monitoring Nitrate-Nitrite, Ammonia, Orthophosphorus and Total Hydrolyzable Phosphorus in Wastewater-Treatment Process Streams** BY R. H. Wise, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 231 990/AS $4.50
670/2-74-047	1BB043	**Activated Silica in Wastewater Coagulation** BY W. J. Weber Jr., and L. A. Ketchum, Michigan, University of, Environmental and Water Resources Engineering Ann Arbor, MI **ORDER FROM: NTIS-PB** 232 454/AS $6.25

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-74-048	1BB043	**Oxygenation of Aqueous Bodies Using Liquid Oxygen-Loxination** BY T. D. Bass, W. Garner, and A. E. Vandergrift, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS-PB** 232 455/AS $3.75
670/2-74-049	1BB034	**Microstraining and Disinfection of Combined Sewer Overflows – Phase III** BY M. Maher, Philadelphia Water Department Philadelphia, PA **ORDER FROM: GPO-**EP1.23/2:670/2-74-049 $1.95 **NTIS-PB** 235 771/AS
670/2-74-050	1BB034	**Combined Sewer Overflow Treatment by the Rotating Biological Contactor Process** BY F. L. Welsh, and D. J. Stucky, Autotrol Corporation Milwaukee, WI **ORDER FROM: NTIS-PB** 231 892/AS $5.75
670/2-74-051	1BB040	**Limestone and Limestone-Lime Neutralization of Acid Mine Drainage** BY R. C. Wilmoth, Industrial Waste Treatment Research Laboratory, EPA Rivesville, WV **ORDER FROM: GPO-**EP1.23/2:670/2-74-051 $1.40 **NTIS-PB** 234 607/AS
670/2-74-052	1BB041	**Waste Oil Recycling and Disposal** BY M. J. Weinstein, Recon Systems, Inc. Princeton, NJ **ORDER FROM: GPO-**EP1.23/2:670/2-74-052 $4.00 **NTIS-PB** 235 857/AS $6.50
670/2-74-053	1BB038	**Combustion Toilet for Use on Small Boats** BY T. S. McMahon, Ocean Systems, Inc. Reston, VA **ORDER FROM: NTIS-PB** 233 175/AS $9.00
670/2-74-054	1BB038	**Sources of Oil and Water in Bilges of Great Lakes Ships** BY J. B. Woodward, Michigan, University of, Department of Naval Architecture and Marine Engineering Ann Arbor, MI **ORDER FROM: NTIS-PB** 233 846/AS $3.25
670/2-74-055		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-056	1BB038	**Development of On-Shore Treatent System for Sewage from Watercraft Retention System** BY J. H. Robbins, and A. C. Green, FMC Corporation, Advanced Products Division San Jose, CA **ORDER FROM: NTIS-PB** 234 645/AS
670/2-74-057	1BB036	**Characterization of Waste Waters from the Ethical Pharmaceutical Industry** BY J. Mayes, Gulf Southern Research Institute for Pharmaceutical Associates Washington, DC **ORDER FROM:** Pending
670/2-74-058		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-059	1BB036	**Laboratory Study of Continous Electro-oxidation of Dilute Cuanide Waste** BY J. J. Byerley, and K. Enns, Waterloo, University of, Department of Chemical Engineering Waterloo, Ontario, Canada **ORDER FROM: NTIS-PB** 235 588/AS $3.25
670/2-74-060		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-061	1BB043	**Phosphate Removal in an Activated Sludge Facility** BY R. E. Finger, G. J. Mason, D. A. Carlson, and G. L. Minton, Seattle, Municipality of Metropolitan Seattle, WA **ORDER FROM: NTIS-PB** 235 749/AS $4.50
670/2-74-062	1BB043	**Cost-Effective Design Based Upon Field Derived Parameters** St. Louis Sewer District, Metropolitan St. Louis, MO **ORDER FROM: NTIS-PB** 234 356/AS $4.50
670/2-74-063	1BB038	**Effects of Exhaust from Two-Cycled Outboard Engines** BY W. W. Shuster, N. L. Clesceri, S. Kobayashi, and W. Perrotte, Rensselaer Polytechnic Institute Troy, NY **ORDER FROM: NTIS-PB** 233 567/AS $7.25
670/2-74-064		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/2-74-065	1DB064	**Preliminary Assessment of Wet Systems for Residential Refuse Collection** BY P. M. Meier, J. Kuhner, and C. J. Martel, Curran Associates, Inc. Northampton, MA **ORDER FROM: NTIS-PB** 234 496/AS $5.50
670/2-74-066	1DB064	**Modifications to the Executive Computer Program for Steady-State Simulation of Wastewater Treatment Facilities** BY P. M. Meier, and G. R. Fisette, Curran Associates, Inc. Northampton, MA **ORDER FROM: NTIS-PB** 234 497/AS $3.75
670/2-74-067	1CB047	**Mathematical Analysis of the Kinetics of Viral Inactivation** BY R. M. Clark, B. L. Grupenhoff, and G. C. Kent, Water Supply Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 235 124 $3.25
670/2-74-068	1DB064	**Assessment of Wet Systems for Residential Refuse Collection: A Summary Report** BY P. M. Meier, J. Kuhner, and R. E. Bolton, Curran Associates, Inc. Northampton, MA **ORDER FROM: NTIS-PB** 236 085 $4.50
670/2-74-069	1BB043	**Control Schemes for the Activated-Sludge Process** BY R. Smith, and R. G. Eilers, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 236 086 $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.

670/2–74–070 1BB040 **Mine Spoil Potentials for Soil and Water Quality** BY R. M. Smith, W. E. Grube Jr, T. Arkle Jr, and A. Sobek, West Virginia University Morgantown, WV **ORDER FROM: NTIS-PB** 237 525/AS $6.25

670/2–74–071 1BB033 **Demonstration of Waste Flow Reduction from Households** BY S. Cohen, and H. Wallman, General Dynamics Corporation Groton, CT **ORDER FROM: NTIS-PB** 236 904/AS $5.25

670/2–74–072 1BB038 **Assessing Effects on Water Quality by Boating Activity** BY Y. A. Yousef, Florida Technological University Orlando, FL **ORDER FROM: NTIS-PB** 237 519/AS $3.30

670/2–74–073 1BB041 **Evaluation of MTF for Testing Hazardous Material Spill Control Equipment --- Abstracted 600/9–75–001b -** -BY C. R. Thomas, G. M. L. Robinson, and E. J. Martin, Hancock Company Bay St. Louis, MS **ORDER FROM: NTIS-PB** 240 762/AS $9.25

670/2–74–074 1BB043 **Microbiology of Sewage Sludge Disposal in Soil** BY R. H. Miller, Ohio Agricultural Research and Development Center Wooster, OH **ORDER FROM: NTIS-PB** 237 817/AS $5.75

670/2–74–075 1BB034 **Surge Facility for Wet and Dry Weather Flow Control** BY H. L. Welborn, Rohnert Park, City of Rohnert Park, CA **ORDER FROM: GPO-**EP1.23/2:670/2–74–075 $1.55 **NTIS-PB** 238 905/AS

670/2–74–076a 1DB064 **Experimental High Ash Papermill Sludge Landfill – First Annual Report --- Abstracted 600/9–75–001a** --BY O. B. Andersland, R. P. Vallee, and T. A. Armstrong, Michigan State University East Lansing, MI **ORDER FROM: NTIS-PB** 239 869/AS $7.00

670/2–74–076b 1DB064 **Experimental High Ash Papermill Sludge Landfill – Second Annual Report --- Abstracted 600/9–75–001a ---** BY O. B. Andersland, R. P. Vallee, W. A. Charlie, and D. W. Marshall, Michigan State University East Lansing, MI **ORDER FROM: NTIS-PB** 239 618 $7.50

670/2–74–077 1BB043 **Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent** BY D. F. Boen, and G. L. Johannson, Eastern Municipal Water District Hemet, CA **ORDER FROM: NTIS-PB** 239 353/AS $7.50

670/2–74–078 1DB063 **Industrial Chemicals Solid Waste Generation — The Significance of Process Resource Recovery, and Improved Disposal** BY J. C. Saxton, and M. Kramer, International Research and Technology Corporation Arlington, VA **ORDER FROM: GPO-**EP1.23/2:670/2–74–078 $2.15 **NTIS-PB** 233 464 $6.25

670/2–74–079 1BB034 **Evaluation of Three Combined Sewage Overflow Treatment Alternatives --- Abstracted 600/9–75–001a ---** BY J. W. Parks, Shelbyville, City of Shelbyville, IL **ORDER FROM: NTIS-PB** 239 115/AS $5.25

670/2–74–080 1BB043 **Study of an Integrated Power, Water and Wastewater Utility Complex** New York State Atomic and Space Development Authority New York, NY **ORDER FROM: NTIS-PB** 239 408/AS $7.50

670/2–74–081 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

670/2–74–082 1DB063 **Measures of Effectiveness for Refuse Storage, Collection, and Transportation Practices** Messer Associates, Inc. Silver Spring, MD **ORDER FROM: NTIS-PB** 241 252/AS $7.00

670/2–74–083 1DB063 **Analysis of the Current Impact of Plastic Refuse Disposal Upon the Environment --- Abstracted 600/9–75–001a** --BY D. A. Braughan, M. Y. Anastas, and H. H. Krause, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 238 654/AS $4.25

670/2–74–084 1DB063 **Study of Corrosion in Municipal Incinerators Versus Refuse Composition --- Abstracted 600/9–75–001a ---** BY D. A. Braughan, H. H. Krause, and W. W. Boyd, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 238 747/AS $4.25

670/2–74–085 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

670/2–74–086 1BB034 **Chemical Impact of Snow Dumping Practices --- Abstracted 600/9–75–001b** --BY P. J. O'Brien, P. L. Levins, and C. H. Summers, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 238 764/AS $3.75

670/2–74–087 1BB034 **Assessment and Development Plan for Monitoring of Organics in Storm Flows --- Abstracted 600/9–75–001a** --BY A. E. Molvar, and A. Tulumello, Raytheon Company Protsmouth, RI **ORDER FROM: NTIS-PB** 238 810/AS $4.75

670/2–74–088 1DB311 **Promising Technologies for Treating Hazardous Waste** BY C. J. Rogers, and R. E. Landreth, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 238 145 $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.

670/2–74–089 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

670/2–74–090 1BB034 **Countermeasures for Pollution From Overflow – The State of the Art --- Abstracted 600/9–75–001a** --BY R. Field, and J. A. Lager, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 240 498 $3.75

670/2–74–091 1BB038 **Devices for On – Board Treatment of Waste from Vessels --- Abstracted 600/9–75–001a** --BY T. J. O'Grady, and T. D. Lakomski, Thiokol Corporation Brigham City, UT **ORDER FROM: NTIS-PB** 240 993/AS $5.75

670/2–74–092 1BB038 **Crankcase Drainage from In-Service Out-board Motors --- Abstracted 600/9–75–001a** --BY C. P. Hare, and C. J. Pringer, Southwest Research Institute San Antonio, TX **ORDER FROM: NTIS-PB** 240 691/AS $5.75

670/2–74–093 1BB040 **Environmental Protection in Surface Mining of Coal** BY E. C. Grim, and R. D. Hill, Industrial Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: GPO-**EP1.23/2:670/2–74–093 $3.50 **NTIS-PB** 238 538 $6.00

670/2–74–094 1CB047 **Microbiological Production of Geosmin** BY N. N. Gerber, Rutgers University New Brunswick, NJ **ORDER FROM: GPO-**EP1.23/2:670/2–74–094 $0.65 **NTIS-PB** 238 781/AS

670/2–74–095a 1DB314 **Effects of Water Pollution Controls on Solid Waste Generation, 1971 to 1985: Executive Summary --- Abstracted 600/9–75–001a** --BY R. Stone, Ralph Stone and Company, Inc. Los Angeles, CA **ORDER FROM: NTIS-PB** 240 739/AS $4.75

670/2–74–095b 1DB314 **Forecast of the Effects of Air and Water Controls of Solid Waste Generation --- Abstracted 600/9–75–001a** --BY R. Stone, and D. Brows, Ralph Stone and Company, Inc. Los Angeles, CA **ORDER FROM: NTIS-PB** 238 819/AS $19.25

670/2–74–096 1BB034 **Characterization and Treatment of Urban Land Runoff --- Abstracted 600/9–75–001a** --BY N. V. Colston, North Carolina, University of Raleigh, NC **ORDER FROM: NTIS-PB** 240 987/AS $6.25

670/2–74–097 1BB038 **Characterization of Vessel Waste in Duluth-Superior Harbor --- Abstracted 600/9–75–001a** --BY G. D. Gumtz, D. M. Jordan, and R. Waller, Environmental Quality Systems, Inc. Rockville, MD **ORDER FROM: NTIS-PB** 241 081/AS $4.25

670/2–75–001 **(No. Cancelled) ORDER FROM:** (No. Cancelled)

670/2–75–002 1BB034 **Suspended Solids Monitor --- Abstracted 600/9–75–001a** --BY J. W. Liskowitz, G. J. Francey, and J. Tarzynski, American Standards, Inc. New Brunswick, NJ **ORDER FROM: NTIS-PB** 241 581/AS $3.75

670/2–75–003 1BB041 **Oil Spill and Oil Pollution Reports --- Abstracted 600/9–75–001a** --BY Jr., F. A DeWitt, and P. Melvin, California, University of Santa Barbara, CA **ORDER FROM: NTIS-PB** 240 719/AS $7.25

670/2–75–004 1BB041 **Feasibility of 5 gpm Dynactor/Flash Magnetic Separator System to Treat Spilled Hazardous Materials --- Abstracted 600/9–75–001a** --BY R. G. Sanders, S. R. Rich, and T. G. Pantazelos, Industrial Bio-Test Laboratories, Inc. Northbrook, IL **ORDER FROM: NTIS-PB** 241 080/AS $3.75

670/2–75–005 1DB311 **Degradation Mechanism: Controlling the Bioaccumulation of Hazardous Materials --- Abstracted 600/9–75–001a** --BY C. Rogers, and R. Landreth, Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 240 748/AS $3.25

670/2–75–006 1BB040 **Removal of Manganese From Mine Drainage by Ozone and Chlorine --- Abstracted 600/9–75–001b** --BY R. Rozelle, and H. Swain, Wilkes College Wilkes Barre, PA **ORDER FROM: NTIS-PB** 241 143/AS $4.25

670/2–75–007 1BB038 **On-Shore Treatment Systems for Sewerage from Watercraft Retention Systems --- Abstracted 600/9–75–001a** --BY A. J. Glueckert, and P. A. Saigh, General American Transportation Corporation Niles, IL **ORDER FROM: NTIS-PB** 239 630 $3.75

670/2–75–008 1BB043 **System Alternatives in Oxygen Activated Sludge --- Abstracted 600/9–75–001a** --BY D. F. Bishop, S. M. Bennet, and A. B. Hais, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 310/AS $4.25

670/2–75–009 1BB033 **Water Renovation of Municipal Effluents by Reverse Osmosis --- Abstracted 600/9–75–001a** --BY J. E. Cruver, J. E. Beckman, and E. Bevege, Gulf Environmental Systems Company San Diego, CA **ORDER FROM: NTIS-PB** 240 018/AS $5.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-75-010	1BB034	**Multi-Purpose Combined Sewer Overflow Treatment Facility, Mount Clemens, Michigan --- Abstracted 600/9-75-001c** --BY V. U. Mahida, and F. J. DeDecker, Mount Clemens, City of Mount Clemens, MI **ORDER FROM: NTIS-PB** 242 914/AS $7.25
670/2-75-011	1BB034	**Physical and Setling Characteristics of Particulates in Storm and Sanitary Wastewaters --- Abstracted 600/9-75-001b** --BY R. J. Dalrymple, S. L. Hodd, and D. C. Morin, American Public Works Association Chicago, IL **ORDER FROM: NTIS-PB** 242 001/AS $3.75
670/2-75-012	1BB043	**Lime Stabilized Sludge: Its Stability and Effect on Agricultural Land --- Abstracted 600/9-75-001a** --BY C. A. Counts, and A. J. Shuckrow, Battelle Memorial Institute Richland, WA **ORDER FROM: NTIS-PB** 241 809/AS $4.75
670/2-75-013	1BB043	**Interim Report of Task Force on Phosphate Removal Sludges --- Abstracted 600/9-75-001a** --BY J. B. Farrell, Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 238 317/AS $7.25
670/2-75-014	1DB063	**Feasibility Study of Use of Molten Salt Technology for Pyrolysis of Solid Waste --- Abstracted 600/9-75-001d** --BY V. L. Hammond, and L. K. Mudge, Battelle Pacific Northwest Laboratories Richland, WA **ORDER FROM: NTIS-PB** 238 674/AS $4.75
670/2-75-015	1BB036	**Pilot Plant Optimization of Phosphoric Acid Recovery Process --- Abstracted 600/9-75-001b** --BY L. E. Lancy, F. A. Steward, and J. H. Weet, Lancy Laboratories Zelienople, PA **ORDER FROM: NTIS-PB** 241 793/AS $3.75
670/2-75-016	1BB036	**Reclamation of Sulfuric Acid From Waste Streams --- Abstracted 600/9-75-001b** --BY H. C. Peterson, and P. L. Kern, New Jersey Zinc Company Palmerton, PA **ORDER FROM: NTIS-PB** 241 791/AS $4.25
670/2-75-017	1BB034	**Storm Water Management Model: User's Manual – Version II --- Abstracted 600/9-75-001a** --BY W. C. Huber, J. P. Heaney, M. A. Medina, W. A. Peltz, H. Sheikh, and G. F. Smith, Florida, University of Gainesville, FL **ORDER FROM:** NERC – Cincinnati, Ohio 45268
670/2-75-018	1BB036	**Reclamation of Metal Values from Metal-Finishing Waste Treatment Sludges --- Abstracted 600/9-75-001b** --BY A. B. Tripler Jr., R. H. Cherry Jr., and Jr., G. R Smithson, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 242 018/AS $4.75
670/2-75-019	1BB034	**Biological Treatment of Combined Sewer Overflow at Kenosha, Wisconsin --- Abstracted 600/9-75-001b** --BY R. W. Agnew, C. A. Hansen, W. H. Richardson, M. J. Clark, and O. F. Nelson, Kenosha, City of Kenosha, WI **ORDER FROM: NTIS-PB** 242 126/AS $8.50
670/2-75-020	1BB034	**Sewerage System Monitoring and Remote Control --- Abstracted 600/9-75-001b** --BY T. R. Watt, R. G. Skrentner, and A. C. Davanzo, Detroit Metro Water Department Detroit, MI **ORDER FROM: NTIS-PB** 242 107/AS $7.00
670/2-75-021	1BB034	**Bench-Scale High-Rate Disinfection of Combined Sewer Overflows With Chlorine and Chlorine Dioxide --- Abstracted 600/9-75-001b** --BY P. E. Moffa, Jr., E. C Tifft, S. L. Richardson, and J. E. Smith, Syracuse University Syracuse, NY **ORDER FROM: NTIS-PB** 242 296/AS $7.00
670/2-75-022	1BB034	**Urban Stormwater Management Modeling and Decision-Making --- Abstracted 600/9-75-001b** --BY J. P. Heaney, W. C. Huber, H. Sheikh, M. A. Medina, J. R. Doyle, W. A. Peltz, and J. E. Darling, Florida, University of Gainesville, FL **ORDER FROM: NTIS-PB** 242 290/AS $7.00
670/2-75-023	1DB064	**Evaluation of Health Hazards Associated With Solid Waste Sewage Sludge Mixtures --- Abstracted 600/9-75-001b** --BY W. L. Gaby, East Tennessee State University Johnson City, TN **ORDER FROM: NTIS-PB** 241 810/AS $4.25
670/2-75-024	1DB064	**Industrial Solid Waste Classification Systems --- Abstracted 600/9-75-001a** --BY J. B. Berkowitz, F. March, and R. Horne, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 239 119/AS $10.50
670/2-75-025	1DB063	**High-Temperature Vortex Incinerator --- Abstracted 600/9-75-001a** --BY R. C. Thurnau, and D. A. Oberacker, Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 240 723/AS $3.75
670/2-75-026a	1DB314	**Analysis Models for Solid Waste Collection --- Abstracted 600/9-75-001a** --BY J. F. Hudson, D. S. Grossman, and D. H. Marks, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 239 117/AS $7.50

BIBLIOGRAPHIC SECTION

REPORT NO.	
670/2–75–026b	1DB314 **Analysis Models for Solid Waste Collection --- Abstracted 600/9–75–001a** --BY J. F. Hudson, D. S. Grossman, and D. H. Marks, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 239 494/AS $7.25
670/2–75–027	1BB043 **Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent; Appendix A-2 and Appendix A-6 --- Abstracted 600/9–75–001a** --BY D. F. Boen, and G. L. Johannsen, Eastern Municipal Water District Hemet, CA **ORDER FROM: NTIS-PB** 239 354/AS $3.75
670/2–75–028	1BB043 **Electrochemical Carbon Regeneration** BY P. H. Owen, and J. P. Barry, Environics, Inc. Huntington Beach, CA **ORDER FROM: NTIS-PB** 239 156/AS $3.75
670/2–75–029	1BB036 **Copper Recovery from Brass Mill Discharge by Cementation with Scrap Iron --- Abstracted 600/9–75–001a** --BY P. O. Case, Anaconda Company Waterbury, CT **ORDER FROM: NTIS-PB** 241 822/AS $4.25
670/2–75–030	1DB064 **Urban Street Cleaning --- Abstracted 600/9–75–001a** --BY A. H. Levis, Polytechnic Institute of Brooklyn Brooklyn, NY **ORDER FROM: NTIS-PB** 239 327/AS $6.25
670/2–75–031	1DB314 **Solid Waste Conversion: Cellulose Liquefaction --- Abstracted 600/9–75–001a** --BY J. A. Kaufman, and A. H. Weiss, Worcester Polytechnic Institute Worcester, MA **ORDER FROM: NTIS-PB** 239 509/AS $7.25
670/2–75–032	1DB314 **Fabrication of Single Cell Protein From Cellulosic Wastes --- Abstracted 600/9–75–001a** --BY W. H. Daly, and Jr., L. P Ruiz, Louisiana State University Baton Rouge, LA **ORDER FROM: NTIS-PB** 239 502/AS $4.25
670/2–75–033a	1DB064 **Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. I – Summary --- Abstracted 600/9–75–001b** --BY N. L. Hecht, and D. S. Duvall, Dayton Research Institute, University of Dayton, OH **ORDER FROM: NTIS-PB** 244 310/AS $3.75
670/2–75–033b	1DB064 **Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. II – Municipal Sludges --- Abstracted 600/9–75–001b** --BY N. L. Hecht, and D. S. Duvall, Dayton Research Institute, University of Dayton, OH **ORDER FROM: NTIS-PB** 244 311/AS $7.50
670/2–75–033c	1DB064 **Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. III – Utility Coal Ash --- Abstracted 600/9–75–001b** --BY N. L. Hecht, and D. S. Duvall, Dayton Research Institute, University of Dayton, OH **ORDER FROM: NTIS-PB** 244 312/AS $4.25
670/2–75–033d	1DB064 **Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. IV – Municipal Incinerator Residues --- Abstracted 600/9–75–001b** --BY N. L. Hecht, and D. S. Duvall, Dayton Research Institute, University of Dayton, OH **ORDER FROM: NTIS-PB** 244 313/AS $4.25
670/2–75–034	1DB314 **Specifications for Materials Recovered from Municipal Refuse --- Abstracted 600/9–75–001b** --BY H. Alter, and W. R. Reeves, National Center for Resource Recovery, Inc. Washington, DC **ORDER FROM: NTIS-PB** 242 540/AS $5.25
670/2–75–035	1BB034 **Stream Pollution Abatement by Supplement Pumping --- Abstracted 600/9–75–001a** --BY C. W. Reh, and W. W. Sadler, Richmond, City of Richmond, VA **ORDER FROM: NTIS-PB** 239 566/AS $5.25
670/2–75–036	1CB047 **Survey of Corrosion Products in the Seattle Water Department Tolt Distribution --- Abstracted 600/9–75–001b** --BY R. A. Dangel, Water Supply Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 242 534/AS $3.75
670/2–75–037	1BB043 **Demonstration of a High-Rate Activated Sludge System --- Abstracted 600/9–75–001b** --BY C. H. Huang, and D. L. Feuerstein, Engineering Science, Inc. Berkeley, CA BY E. L. Miller, City of Chino Chino, CA **ORDER FROM: NTIS-PB** 240 005/AS $6.25
670/2–75–038	1BB043 **Demonstrated Technology and Research Needs for Reuse of Municipal Wastewater --- Abstracted 600/9–75–001b** --BY C. J. Schmidt, and E. V. Clements III, SCS Engineers Long Beach, CA **ORDER FROM: NTIS-PB** 249 151/AS $10.00
670/2–75–039	1BB043 **Advanced Automatic Control Strategies for the Activated Sludge Treatment Process --- Abstracted 600/9–75–001b** --BY J. F. Petersack, and R. G. Smith, Systems Control, Inc. Palo Alto, CA **ORDER FROM: NTIS-PB** 246 726/AS $7.50
670/2–75–040	1DB314 **Design and Performance Considerations for a Pilot Process for Separating Mixed Municipal Refuse --- Abstracted 600/9–75–001c** --BY D. G. Wilson, and S. D. Senturia, Massachusetts Institute of Technology Cambridge, MA **ORDER FROM: NTIS-PB** 242 136/AS $4.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2-75-041	1BB034	**Storm Water Management Model: Dissemination and User Assistance --- Abstracted 600/9-75-001b** --BY J. A. Hagarman, and F. R. Dressler, University City Science Center Philadelphia, PA **ORDER FROM: NTIS-PB** 242 544/AS $4.25
670/2-75-042	1BB041	**Methods to Treat, Control and Monitor Spilled Hazardous Materials --- Abstracted 600/9-75-001c** --BY R. J. Pilie, R. E. Baier, R. C. Ziegler, R. P. Leonard, J. G. Michalovic, S. L. Pek, and D. H. Bock, Calspan Corporation Buffalo, NY **ORDER FROM: NTIS-PB** 243 386/AS $5.75
670/2-75-043	1BB036	**Disposal and Utilization of Waste Kiln Dust From Cement Industry --- Abstracted 600/9-75-001b** --BY T. A. Davis, and D. B. Hooks, Southern Research Institute Birmingham, AL **ORDER FROM: NTIS-PB** 242 825/AS $4.25
670/2-75-044	1BB041	**Oil Spill and Oil Pollution Reports – November 1974 – February 1975 --- Abstracted 600/9-75-001b** --BY F. A. DeWitt Jr., and P. Melvin, California, University of Santa Barbara, CA **ORDER FROM: NTIS-PB** 242 542/AS $8.50
670/2-75-045	1BB043	**Replacement of Activated Sludge Secondary Clarifiers by Dynamic Straining --- Abstracted 600/9-75-001c** --BY M. Joyce, W. Schultz, and A. Strom, FMC Corporation Itasca, IL **ORDER FROM: NTIS-PB** 242 828/AS $4.75
670/2-75-046	1BB034	**Rainfall-Runoff Relations on Urban and Rural Areas --- Abstracted 600/9-75-001c** --BY E. F. Brater, and J. D. Sherrill, Michigan, University of Ann Arbor MI **ORDER FROM: NTIS-PB** 242 830/AS $5.25
670/2-75-047	1BB040	**Up-Dip Versus Down-Dip Mining: An Evaluation --- Abstracted 600/9-75-001c** --BY J. W. Mentz, and J. B. Warg, Skelly & Log, Engineers Harrisburg, PA **ORDER FROM: NTIS-PB** 244 420/AS $4.75
670/2-75-048	1BB040	**Water Quality Control in Mine Spoils — Upper Colorado River Basin --- Abstracted 600/9-75-001c** --BY D. B. McWhorter, R. K. Skogerboe, and G. V. Skogerboe, Colorado State University Fort Collins, CO **ORDER FROM: NTIS-PB** 242 908/AS $5.25
670/2-75-049	1BB043	**Review of Landspreading of Liquid Municipal Sewage Sludge --- Abstracted 600/9-75-001c** --BY T. E. Carroll, D. L. Maase, J. M. Genco, and C. N. Ifeadi, Battelle Memorial Institute Columbus, OH **ORDER FROM: NTIS-PB** 245 271/AS $5.25
670/2-75-050a	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Summary Report --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 245 555/AS $5.25
670/2-75-050b	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix A. Weather and Lake Level Data, Water Quality Data, and Raw Water Pumping Schedule --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 245 556/AS $4.25
670/2-75-050c	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix B. Design, Installation and Operation of Pilot Filters. Appendix C. Summary of Data for Individual Filter Runs --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 245 557/AS $4.25
670/2-75-050d	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix D. Head Loss and Turbidity Curves for Individual Filter Runs --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 245 558/AS $7.50
670/2-75-050e	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix E. Ontario Research Foundation Electron Microscope Analysis Results. Appendix F. EPA National Water Quality Laboratory X-Ray Diffraction Analysis Results. Appendix G. University of Minnesota at Duluth Electron Microscope Analysis Results --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 249 068/AS $4.50
670/2-75-050f	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix H. Comparison of Turbidimeters --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 249 070/AS $3.25
670/2-75-050g	1CB047	**Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix I. Diatomite Filters for Asbestiform Fiber Removal from Water --- Abstracted 600/9-75-001c** --Black & Veatch Consulting Engineers Kansas City, MO **ORDER FROM: NTIS-PB** 244 080/AS $4.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/2–75–051	1BB043	**Single-Stage Nitrification-Denitrification — Abstracted 600/9–75–001c** —BY D. F. Bishop, J. A. Heidman, and J. B. Stamberg, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS–PB** 242 857/AS $3.75
670/2–75–052	1BB043	**Carbon, Nitrogen, and Phosphorus Removal in Staged NitrificationDenitrification Treatment — Abstracted 600/9–75–001c** —BY J. A. Heidman, D. F. Bishop, and J. B. Stamberg, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS–PB** 242 970/AS $3.75
670/2–75–053	1DB064	**Use of Domestic Waste Glass for Urban Paving – Summary Report — Abstracted 600/9–75–001b** —BY W. R. Malisch, D. E. Day, and B. G. Wixon, Missouri, University of Rolla, MO **ORDER FROM: NTIS–PB** 242 536/AS $4.25
670/2–75–054	1BB034	**Characterization and Treatment of Combined Sewer Overflows — Abstracted 600/9–75–001b** —San Francisco, City of San Francisco, CA **ORDER FROM: NTIS–PB** 241 299/AS $7.25
670/2–75–055	1BB036	**Removal of Chromium from Plating Rinse Water Using Activated Carbon — Abstracted 600/9–75–001c** — BY R. B. Landrigan, and J. B. Hallowell, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS–PB** 243 370/AS $4.25
670/2–75–056	1BB041	**Preliminary Design of a Comprehensive Waste Oil Processing Facility — Abstracted 600/9–75–001c** —BY G. D. Gumtz, and E. J. Martin, Environmental Quality Systems, Inc. Rockville, MD **ORDER FROM: NTIS–PB** 242 461/AS $5.75
670/2–75–057	1BB041	**Guidelines for the Disposal of Small Quantities of Unused Pesticide — Abstracted 600/9–75–001c** —BY E. W. Lawless, T. L. Ferguson, and A. F. Meiners, Midwest Research Institute Kansas City, MO **ORDER FROM: NTIS–PB** 244 557/AS $9.50
670/2–75–058	1DB314	**Environmental Assessment of Future Disposal Methods for Plastics in Municipal Solid Waste — Abstracted 600/9–75–001c** —BY D. A. Vaughan, C. Ifeadi, R. A. Markle, and H. H. Krause, Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS–PB** 243 366/AS $4.75
670/2–75–059	1BB041	**Oil Spill and Oil Pollution Reports, February 1975 – April 1975 — Abstracted 600/9–75–001c** —BY F. A. DeWitt Jr., and P. Melvin, California, University of Santa Barbara, CA **ORDER FROM: NTIS–PB** 243 724/AS $7.50
670/2–75–060	1BB043	**Controlling Sulfides in Sanitary Sewers Using Air and Oxygen — Abstracted 600/9–75–001c** —BY R. J. Sewell, Port Arthur, City of Port Arthur, TX **ORDER FROM: NTIS–PB** 243 894/AS $5.25
670/2–75–061	1BB038	**Analysis of Emissions from Outboard Two Cycle Marine Engines — Abstracted 600/9–75–001c** —BY W. J. Weber Jr., D. E. Cole, and J. C. Posner, Michigan, University of Ann Arbor, MI **ORDER FROM: NTIS–PB** 242 174/AS $8.50
670/2–75–062	1BB038	**Analysis of Pollution from Marine Engines and Effects on the Environment — Abstracted 600/9–75–001c** — Environmental Control Technology Corporation Ann Arbor, MI **ORDER FROM: NTIS–PB** 242 175/AS $9.50
670/2–75–063	1BB038	**Analysis of Pollution from Marine Engines and Effects on the Environment – Southern Lakes — Abstracted 600/9–75–001c** —BY H. L. Davis, and K. D. Wilson, Environmental Science and Engineering, Inc. Gainesville, FL **ORDER FROM: NTIS–PB** 242 176/AS $7.50
670/2–75–064	1BB038	**Analysis of Pollution from Marine Engines and Effects on the Environment – Summary Report — Abstracted 600/9–75–001c** —Boating Industry Association Chicago, IL **ORDER FROM: NTIS–PB** 242 177/AS $4.25
670/2–75–065	1BB034	**Short Course Proceedings: Applications of Stormwater Management Models — Abstracted 600/9–75–001c** —BY F. A. DiGiano, and P. A. Mangarella, Massachusetts, University of Amherst, MA **ORDER FROM: NTIS–PB** 247 163/AS $11.75
670/2–75–066	1BB041	**Surface Effects Skimmer Devel**[illegible] **— Abstracted 600/9–75–001c** —BY N. P. Trentacoste, Science Applications, Inc. McLean, VA **ORDER** [illegible] **NTIS–PB** 242 391/AS $4.75
670/2–75–067	1BB034	**Automatic Organic Monitoring System for Storm and Combined Sewers — Abstracted 600/9–75–001c** —BY A. Tulumello, Raytheon Company Portsmouth, RI **ORDER FROM: NTIS–PB** 244 142/AS $4.75
670/2–75–068	1BB041	**Recycling of Waste Oils — Abstracted 600/9–75–001c** —BY S. Maizus, National Oil Recovery Corporation Bayonne, NJ **ORDER FROM: NTIS–PB** 243 222/AS $8.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/4-73-001	1BA027	**Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents** BY C. I. Weber, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 227 183 $12.50
670/4-73-002	1BA027	**Investigation of Remote Sensing Techniques for Agricultural Feedlot Pollution Detection** BY F. A. Schmer, D. W. Ryland, and F. A. Waltz, South Dakota State University Brookinger, SD **ORDER FROM:** Pending
670/4-73-003		**670/4-73-003 thru 670/4-73-017 are Unassigned and will remain Unassigned ORDER FROM:** (Unassigned)
670/4-73-018	1HA327	**Performance of the Union Carbide Dissolved Oxygen Sensor** BY R. J. O'Herron, National Environmental Research Center, Analytical Quality Control Laboratory Cincinnati, OH **ORDER FROM: NTIS-PB** 239 162/AS $3.25
670/4-73-019		**670/4-73-019 thru 670/4-73-025 are Unassigned and will remain Unassigned ORDER FROM:** (Unassigned)
670/4-73-026		**(No. Cancelled) ORDER FROM:** (No. Cancelled)
670/4-74-001	1HA327	**Literature Survey of Instrumental Measurements of Biochemical Oxygen Demand for Control Application, 1960-1963** BY R. J. O'Herron, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 232 765/AS $3.25
670/4-74-002	1BA027	**Simultaneous and Automated Determination of Total Phosphorous and Total Kjeldahl** BY M. E. Gales, and R. L. Booth, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 232 710/AS $3.25
670/4-74-003a	1BA027	**Analytical Methodology Information Center: Activities for 1973 – 1974** BY R. L. Little, and R. L. Dearby, Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Garrett, L. 202-426-2355
670/4-74-003b	1BA027	**Reviews of Current Literature on Analytical Methodology and Quality Control – Activities for 1973 through 1974** Battelle Columbus Laboratories Columbus, OH **ORDER FROM:** Garrett, L. 202-426-2355
670/4-74-004	1BA027	**Estimation of Polychlorinated Biphenyls in the Presence of DDT-Type Compounds** Baird-Atomic, Inc. Bedford, MA **ORDER FROM: NTIS-PB** 233 599/AS $4.75
670/4-74-005	1BA027	**Environmental Requirements and Pollution Tolerance of Freshwater Diatoms** BY R. L. Lowe, Bowling Green State University Bowling Green, OH **ORDER FROM: NTIS-PB** 239 490/AS $9.50
670/4-74-006	1BA027	**Taxonomy and Ecology of Stenonema Mayflies (Heptageniidae: Ephemeroptera) --- Abstracted 600/9-75-001a** --BY P. A. Lewis, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 235/AS $4.75
670/4-74-007	1HA327	**Evaluation of the Ryan's Waterproof Thermograph (Model F-30)** BY R. P. Lauch, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 237 561/AS $3.25
670/4-74-008	1BA027	**Occurrence of Organohalides in Chlorinated Drinking Waters** BY T. A. Bellar, J. J. Lichtenberg, and R. C. Kroner, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: GPO-**EP1.23/5:670/4-74-008 $0.65
670/4-74-009	1BA027	**Determination of Volatile Organic Compounds at the UG/1 Level in Water by Gas Chromatography** BY T. A. Bellar, and J. J. Lichtenberg, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: GPO-**EP1.23/5:670/4-74-009 $0.80 **NTIS-PB** 237 973/AS
670/4-75-001	1HA327	**Performance of the OSCO Model 1391 Water Wastewater Sampler --- Abstracted 600/9-75-001a** --BY R. P. Lauch, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 240 700/AS $3.75
670/4-75-002	1HA327	**Interfacing a 24-Point Analog Recorder to a Computer Controlled Telemetry Line --- Abstracted 600/9-75-001a** --BY J. M. Teuschler, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 086/AS $3.75
670/4-75-003	1HA327	**Application and Procurement of Automatic Wastewater Samplers --- Abstracted 600/9-75-001a** --BY R. P. Lauch, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 085/AS $3.75
670/4-75-004a	1HA327	**Fortran Programs for Analyzing Collaborative Test Date: Part I – General Statistics --- Abstracted 600/9-75-001a** --BY E. C. Julian, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 707/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/4-75-004b	1HA327	**Fortran Programs for Analyzing Collaborative Test Date: Part II – Scatter Plots — Abstracted 600/9-75-001a** --BY E. C. Julian, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 708/AS $3.75
670/4-75-005	1HA327	**Investigation of the Orion Research Cyanide Monitor — Abstracted 600/9-75-001b** --BY R. J. O'Herron, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 241 802/AS $3.75
670/4-75-006	1HA327	**Activities and Needs Related to Radioactive Standards for Environmental Measurements: A Symposium held in Washington, DC, August 21, 1973** BY J. E. Eldridge, and B. Kahn, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 243 256/AS $4.25
670/5-73-001		**670/5-73-001 thru 670/5-73-011 are Unassigned and will remain Unassigned ORDER FROM:** (Unassigned)
670/5-73-012	1DA312	**Systems Simulation and Solid Waste Planning: A Case Study** BY R. M. Clark, and J. I. Gillean, National Environmental Research Center, Office of Program Coordination Cincinnati, OH **ORDER FROM: NTIS-PB** 222 995 $3.75
670/5-73-013		**670/5-73-013 thru 670/5-73-019 are Unassigned and will remain Unassigned ORDER FROM:** (Unassigned)
670/5-73-020	1DA312	**Study of the Economics of Hospital Solid Waste Systems** BY R. G. Bond, Minnesota, University of, Division of Environmental Health Minneapolis, MN **ORDER FROM: NTIS-PB** 221 681 $9.00
670/5-73-021	1DA312	**Economic and Technological Impediments to Recycling Obsolete Ferrous Solid Waste** BY O. W. Albrecht, and R. G. McDermott, Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 223 034 $4.25
670/5-74-001	1DA312	**Hospital Solid Waste: An Annotated Bibliography** BY R. D. Siner, A. G. Duchene, and N. J. Vick, Minnesota, University of, School of Public Health Minneapolis, MN **ORDER FROM: NTIS-PB** 227 708/AS $5.75
670/5-74-002	1DA312	**Case Study and Business Analysis of the Scrap Industry** Resource Planning Institute Cambridge, MA **ORDER FROM: NTIS-PB** 229 200/AS $4.75
670/5-74-003	1DA312	**Can Federal Procurement Practices be Used to Reduce Solid Waste** BY J. Milgrom, Arthur D. Little, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 229 727/AS $7.50
670/5-74-004	1DA312	**Secondary Fiber Recovery Incentive Analysis** BY F. A. Cardin, Resource Planning Institute Cambridge, MA **ORDER FROM: NTIS-PB** 241 082/AS $10.25
670/5-74-005	1DA312	**Aluminum as a Component of Solid Waste and a Recoverable Resource** BY R. J. Talley, and R. H. Ongerth, National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 235 770/AS $3.25
670/5-74-006	1DA312	**Criteria for Regional Solid Waste Management Planning — Abstracted 600/9-75-001a** --BY B. H. Stevens, Regional Science Research Institute Philadelphia, PA **ORDER FROM: NTIS-PB** 239 631 $9.50
670/5-74-007	1DA312	**Optimal Configuration of a Regional Solid Waste Management System** BY A. A. Pathak, California, University of Berkeley, CA **ORDER FROM: NTIS-PB** 233 360/AS $5.75
670/5-74-008	1DA312	**Optimization Models for Regional Public Systems** BY K. S. Vasan, California, University of Berkeley, CA **ORDER FROM: NTIS-PB** 231 309/AS $4.75
670/5-74-009	1DA312	**Model for Optimal Design and Operation of Solid Waste Transfer Stations** BY H. J. Yaffe, California, University of Berkeley, CA **ORDER FROM: NTIS-PB** 227 075/AS $4.50
670/5-75-001	1DA312	**Evaluation of Feasibility and Economic Implication of Pricing Mechanisms in Solid Waste Management — Abstracted 600/9-75-001a** --BY E. Ernst, ABT Associates, Inc. Cambridge, MA **ORDER FROM: NTIS-PB** 239 116/AS $4.75
670/9-73-001		**670/9-73-001 thru 670/9-73-003 are Unassigned and Will Remain Unassigned ORDER FROM:** (Unassigned)
670/9-73-004	1RA103	**Environmental Research Publications** National Environmental Research Center, Technical Information Office Cincinnati, OH **ORDER FROM: NTIS-PB** 223 591/AS $3.00
670/9-73-005		**670/9-73-005 thru 670/9-73-034 are Unassigned and Will Remain Unassigned ORDER FROM:** (Unassigned)

BIBLIOGRAPHIC SECTION

REPORT NO.		
670/9–73–035	1DA312	**Socio-Economic Factors Affecting Demand for Municipal Collection of Household Refuse** Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 225 020/7 $3.50
670/9–73–036		**670/9–73–036 thru 670/9–73–054 are Unassigned and will Remain Unassigned ORDER FROM:** (Unassigned)
670/9–73–055	1kA103	**Annual Report, 1972, NERC – Cincinnati** National Environmental Research Center, Technical Information Office Cincinnati, OH **ORDER FROM: NTIS-PB** 222 910 $3.75
670/9–73–056	1RA103	**Active Research Tasks Report, Fiscal Year 1973** BY G. R. Schultz, and D. J. Harmon, National Environmental Research Center, Office of Research and Development Cincinnati, OH **ORDER FROM: NTIS-PB** 223 567/AS $6.50
670/9–74–001	1RA103	**Environmental Research in 1973, Annual Report** National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 229 510/AS $5.25
670/9–74–002	1RA103	**News of Environmental Research in Cincinnati – May-December, 1973** National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 230 935/AS $6.25
670/9–74–003	1BB033	**Second U.S. – Japan Conference on Sewage Treatment Technology December 1–6, 1972** Office of Research and Development, Office of International Affairs Washington, DC **ORDER FROM: NTIS-PB** 230 709 $28.25
670/9–74–004	1RA103	**Excerpts from Control of Infiltration and Inflow into Sewer Systems and Prevention and Correction of Excessive Infiltration and Inflow Into Sewer Systems** National Environmental Research Center, Technical Information Staff Cincinnati, OH **ORDER FROM:** Pending
670/9–74–005	1BA027	**Virus in Waste, Renovated, and Other Waters – 1973 Literature Abstracts** BY G. Berg, Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH **ORDER FROM:** Pending
670/9–74–006	1RA103	**Pollution Control Technology Assessment – Proceedings of an Environmental Resources Conference, May 1–3, 1974 --- Abstracted 600/9–75–001a** --Battelle Columbus Laboratories Columbus, OH **ORDER FROM: NTIS-PB** 238 303/AS $7.00
670/9–75–001	1RA103	**Environmental Research Publications 1971–1975 --- Abstracted 600/9–75–001a** --Technical Information Staff, NERC Cincinnati, OH **ORDER FROM: NTIS-PB** 239 602/AS $5.25
670/9–75–002	1RA103	**NERC-Cincinnati Annual Report, 1974 --- Abstracted 600/9–75–001c** --Technical Information Staff, NERC Cincinnati, OH **ORDER FROM: NTIS-PB** 242 040/AS $5.25
670/9–75–003	1RA103	**News of Environmental Research in Cincinnati, January – December 1974 --- Abstracted 600/9–75–001a** --- Technical Information Staff, NERC Cincinnati, OH **ORDER FROM: NTIS-PB** 240 131/AS $4.25
670/9–75–004	1BB043	**Upgrading Wastewater Stabilization Ponds to Meet New Discharge Standards --- Abstracted 600/9–75–001a** --BY E. J. Middlebrooks, D. H. Falkenborg, R. F. Lewis, and D. J. Ehreth, Utah State University Logan, UT **ORDER FROM: NTIS-PB** 240 402/AS $7.50
670/9–75–005	1RA103	**Third U.S. — Japan Conference on Sewage Treatment Technology, Proceedings, February 12 – 16, 1974 --- Abstracted 600/9–75–001c** --National Environmental Research Center, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 243 167/AS $13.00
670/9–75–006	1CB047	**Handbook for Evaluating Water Bacteriology --- Abstracted 600/9–75–001c** --BY E. E. Geldreich, Water Supply Research Laboratory, NERC, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 247 145/AS $7.50
670/9–75–007	1BA027	**Viruses in Waste Renovated and other Viruses—1974 Literature Abstracts** BY G. Berg, National Environmental Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 245 957/AS $3.75
670/9–75–008	1CA046	**Literature Review and Bibliography of Mammalian Toxicology of Select Munitions --- Abstracted 600/9–75–001c** --BY J. L. Mullaney, and R. G. Tardiff, Water Supply Research Laboratory, EPA Cincinnati, OH **ORDER FROM: NTIS-PB** 243 566/AS $4.25
680/1–75–001	1FA082	**Synergistic Effect of Polonium-210 and Cigarette Smoke in Rats --- Abstracted 600/9–75–001b** --BY S. C. Black, and E. W. Bretthauer, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 246 174/AS $3.25
680/4–73–001b	1HA327	**Environmental Radioactivity Laboratory Intercomparison Studies Program, 1973 – 1974** Quality Assurance Research Laboratory, EPA Las Vegas, NV **ORDER FROM: GPO**-EP1.23/5:680/4–73–001b $0.65 **NTIS-PB** 240 962/AS $3.75

BIBLIOGRAPHIC SECTION

REPORT NO.		
680/4-73-001A	1HA327	**Radioactivity Standards Distribution Program, 1973 – 1974** National Environmental Research Center, Quality Assurance Branch, EPA, Las Vegas, NV **ORDER FROM: GPO-**EP1.23/5:680/4-73-001A $0.60 **NTIS-PB** 240 955/AS $3.25
680/4-73-002	1HA326	**Simplified Atomic Absorption Determination of Stable Strontium in Milk and Hay** BY J. Barth, National Environmental Research Center, EPA Las Vegas, NV BY B. H. Bruckner, U.S. Department of Health, Education, and Welfare, National Institute for Occupational Safety and Health Rockville, MD **ORDER FROM: GPO-**EP1.23/5:680/4-73-002 $0.70 **NTIS-PB** 240 764/AS $3.75
680/4-74-001	1HA325	**Accumulation of Tritium in Various Species of Fish Reared in Tritiated Water** BY R. G. Patzer, A. A. Moghissi, and D. N. McNelis, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 238 684/AS $3.25
680/4-74-002	1HA325	**Polluted Groundwater: Estimating the Effects of Man's Activities (Formerly 600/4-74-002)** BY J. F. Karuvian, General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA **ORDER FROM: NTIS-PB** 241 078/AS $5.75
680/4-74-003	1HA325	**Rationale and Methodology for Monitoring Groundwater Polluted by Mining Activities (Formerly 600/4-74-003)** BY D. L. Warner, General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA **ORDER FROM: NTIS-PB** 241 402/AS $4.75
680/4-75-001	1HA325	**Handbook of Radiochemical Analytical Methods — Abstracted 600/9-75-001a** --BY F. B. Johns, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 240 621/AS $5.75
680/4-75-002a	1HA327	**Radioactivity Standards Distribution Program – 1975 — Abstracted 600/9-75-001b** --Quality Assurance Research Laboratory, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 243 696/AS $3.25
680/4-75-002b	1HA327	**Environmental Radioactivity Laboratory Intercomparison Studies Program—1975 — Abstracted 600/9-75-001b** --National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 243 636/AS $3.75
680/4-75-003	1HA325	**Development of a Biological Monitoring Network-A Test Case: Suitability of Livestock and Wildlife as Biological Monitors for Organophosphorus Contaminants — Abstracted 600/9-75-001b** --BY W. W. Sutton, National Environmental Research Center, EPA Las Vegas, NV BY L. L. Saloman, Dugway Proving Ground Dugway, UT **ORDER FROM: NTIS-PB** 246 062/AS $3.75
680/4-75-004	1HA326	**Nonpoint-Source Pollution in Surface Waters: Associated Problems and Investigative Techniques — Abstracted 600/9-75-001c** --National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 243 995/AS $3.75
680/4-75-005	1HA327	**Tentative Reference Method for the Measurement of Gross Alpha and Gross Beta Radioactivities in Environmental Waters — Abstracted 600/9-75-001c** --Quality Assurance Branch, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 245 890/AS $3.25
680/4-75-006	1FA083	**Tritium Fractionation in Plants — Abstracted 600/9-75-001c** --BY J. C. McFarlane, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 245 839/AS $3.25
680/4-75-007	1HA327	**Preliminary Milk Report — Abstracted 600/9-75-001c** --BY A. N. Jarvis, and D. G. Easterly, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 245 598/AS $3.75
680/4-75-008	1HA326	**Monitoring Disposal-Well Systems — Abstracted 600/9-75-001c** --BY D. L. Warner, General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA BY G. B. Morgan, National Environmental Research Center, EPA Las Vegas, NV **ORDER FROM: NTIS-PB** 246 214/AS $5.25

TITLE INDEX

Abatement of Mine Drainage Pollution By Underground Precipitation – REF. NO. EPA-670/2–73–092
Absorption of Sulfur Dioxide In Spray Column and Turbulant Contacting Absorbers – REF. NO. EPA-600/2–75–023
Absorption of SO_2 by Alkaline Solutions in Venturi Scrubber Systems – REF. NO. EPA-650/2–73–003
Absorption of SO_2 into Lime Slurries: Absorption Rates and Kinetics – REF. NO. EPA-650/2–73–047
Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part I – REF. NO. EPA-600/2–76–016a
Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part II – REF. NO. EPA-600/2–76–016b
Accumulation of Tritium in Various Species of Fish Reared in Tritiated Water – REF. NO. EPA-680/4–74–001
Acid Hydrolysis of Cellulose in Refuse to Sugar and Its Fermentation to Alcohol – REF. NO. EPA-670/2–73–011
Acquisition and Culture of Research Fish — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–011
Actinomycetes of Sewage-Treatment Plants — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–031
Actions of Pesticides and Other Drugs on the Male Reproductive System – REF. NO. EPA-650/1–74–011
Activated Carbon Treatment of Unbleached Kraft Effluent for Reuse — Abstracted 600/9–75–001a — REF. NO. EPA-660/2–75–004
Activated Silica in Wastewater Coagulation – REF. NO. EPA-670/2–74–047
Activated Sludge – Bio-Disc Treatment of Distillery Wastewater – REF. NO. EPA-660/2–74–014
Activated Sludge Process Using Pure Oxygen – REF. NO. EPA-670/2–73–042
Activated Sludge Treatment Systems With Oxygen – REF. NO. EPA-670/2–73–073
Active Research Tasks Report, Fiscal Year 1973 – REF. NO. EPA-670/9–73–056
Activities and Needs Related to Radioactive Standards for Environmental Measurements: A Symposium held in Washington, DC, August 21, 1973 – REF. NO. EPA-670/4–75–006
Acute Toxicity of Certain Pesticides to *Acartia tonsa* Dana – REF. NO. EPA-600/3–76–033
Acute Toxicity of Selected Toxicants to Six Species of Fish – REF. NO. EPA-600/3–76–008
Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input – REF. NO. EPA-600/3–75–003a
Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input – Appendices – REF. NO. EPA-600/3–75–003b
Adsorption from Aqueous Solution – REF. NO. EPA-670/2–74–012
Adsorption of Odorous Pollutants by Active Manganese Dioxide – REF. NO. EPA-650/2–74–063
Advanced Automatic Control Strategies for the Activated Sludge Treatment Process — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–039
Advanced Prototype Direct Reading Instrument for Particulate Mass Measurement – REF. NO. EPA-650/2–74–065
Aerobic-Stabilization of Waste Activated Sludge – An Experimental Investigation — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–035
Aerodynamic Control of Nitrogen Oxides and Other Pollutants from Fossil Fuel Combustion Volume II – Raw Data and Experimental Equipment – REF. NO. EPA-650/2–73–033b
Aerodynamic Control of Nitrogen Oxides and Other Pollutants From Fossil Fuel Combustion Volume I – Data Analysis and Summary of Conclusions – REF. NO. EPA-650/2–73–033a
Aerosol Formation from Gas-Phase Reactions of Ozone and Olefin in the Presence of Sulfur Dioxide – REF. NO. EPA-650/4–74–034
Aesthetics in Environmental Planning – REF. NO. EPA-600/5–73–009
Agriculture and Clean Water – Proceedings of a Conference on Agricultural Water Pollution Control — Abstracted 600/9–75–001d — REF. NO. EPA-600/9–75–005
Air Flotation – Biological Oxidation of Synthetic Rubber and Latex Wastewater – REF. NO. EPA-660/2–73–018
Air Pollution Effects on Catastrophic Failure of Metals – REF. NO. EPA-650/3–74–009
Air Pollution Exposure and Immunoglobulin Levels – REF. NO. EPA-650/1–75–005
Alternative Septage Treatment Method: Lime Stabilization/ Sand-Bed Dewatering — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–036
Alum Addition to Activated Sludge With Tertiary Solids Removal – REF. NO. EPA-670/2–73–037
Aluminum as a Component of Solid Waste and a Recoverable Resource – REF. NO. EPA-670/5–74–005
Ambient Air Measurements of Vinyl Chloride in the Niagara Falls Area – REF. NO. EPA-650/4–75–020
Americium – Its Behavior in Soil and Plant Systems – REF. NO. EPA-600/3–76–005
Ammonia Nitrogen Removal By Breakpoint Chlorination – REF. NO. EPA-670/2–73–058
An Investigation of Ion Removed From Water and Wastewater – REF. NO. EPA-660/3–74–022
Anaerobic-Aerobic Lagoon Treatment of Dairy Manure Wastes – REF. NO. EPA-660/2–74–030
Analysis of the Abandoned Automobile Problem – REF. NO. EPA-670/2–73–013
Analysis of the Composition of the Atmosphere in the Los Angeles Basin – REF. NO. EPA-650/2–74–105
Analysis of the Current Impact of Plastic Refuse Disposal Upon the Environment — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–083
Analysis of the Dynamics of DDT in Marine Sediments — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–013
Analysis of Carbon-14 and Tritium in Reactor Stack Gas — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–011
Analysis of Coprostanol, An Indicator of Fecal Contamination – REF. NO. EPA-660/2–74–021
Analysis of Cost Sharing Programs for Pollution Abatement of Municipal Wastewater – REF. NO. EPA-600/5–74–031
Analysis of Emissions from Outboard Two Cycle Marine Engines — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–061
Analysis of Multiple Cell Mechanical Draft Cooling Towers — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–039
Analysis of Nonpoint-Source Pollutants in the Missouri Basin Region — Abstracted 600/9–75–001a — REF. NO. EPA-600/5–75–004

TITLE INDEX

Analysis of Organic Compounds in Two Kraft Mill Wastewaters — Abstracted 600/9–75–001c — REF. NO. EPA-660/4–75–005
Analysis of Pollution from Marine Engines and Effects on the Environment — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–062
Analysis of Pollution from Marine Engines and Effects on the Environment – Southern Lakes — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–063
Analysis of Pollution from Marine Engines and Effects on the Environment – Summary Report — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–064
Analysis of Pollution Control Costs – REF. NO. EPA-670/2–74–009
Analysis of Polycyclic Organic Materials in Coal, Coal Ash, Fly Ash, and Other Fuel and Emission Samples – REF. NO. EPA-600/2–76–075
Analysis of Test Data for NOx Control in Gas and Oil-Fired Utility Boilers — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–012
Analysis Models for Solid Waste Collection — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–026a
Analysis Models for Solid Waste Collection — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–026b
Analytical Methodology Information Center: Activities for 1973 – 1974 – REF. NO. EPA-670/4–74–003a
Analytical Quality Assurance for Trace Organic Analysis by Gas Chromotography/Mass Spectrometry – REF. NO. EPA-600/4–75–007
Andersen Filter Substrate Weight Loss — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–022
Annual Catalyst Research Program Report Appendices, Volume I — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010b
Annual Catalyst Research Program Report Appendices, Volume II — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010c
Annual Catalyst Research Program Report Appendices, Volume III — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010d
Annual Catalyst Research Program Report Appendices, Volume IV — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010e
Annual Catalyst Research Program Report Appendices, Volume IX — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010j
Annual Catalyst Research Program Report Appendices, Volume V — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010f
Annual Catalyst Research Program Report Appendices, Volume VI — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010g
Annual Catalyst Research Program Report Appendices, Volume VII — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010h
Annual Catalyst Research Program Report Appendices, Volume VIII — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010i
Annual Catalyst Research Program Report—Summary — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010a
Annual Report for Calendar Year 1972, Environmental Toxicology Research – REF. NO. EPA-670/1–73–036
Annual Report, 1972, NERC – Cincinnati – REF. NO. EPA-670/9–73–055
Apollo County Park Wastewater Reclamation Project – Antelope Valley, California – REF. NO. EPA-600/2–76–022
Applicability of the Meyers Process for Chemical Desulfurization of Coal: Survey of 35 Coals – REF. NO. EPA-650/2–74–025a
Applicability of the Meyers Process of Chemical Desulfurization of Coal: Initial Survey of Fifteen Coals – REF. NO. EPA-650/2–74–025
Application and Procurement of Automatic Wastewater Samplers — Abstracted 600/9–75–001a — REF. NO. EPA-670/4–75–003
Application of Automatic Data Processing Technology to Laboratory Problems — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–035
Application of Exchange Resins for Treatment of Textile Dye Wastes – REF. NO. EPA-660/2–75–016
Application of Holographic Methods to the Measurement of Flames and Particulate – Volume II – REF. NO. EPA-650/2–74–031b
Application of Holographic Methods to the Measurement of Flames and Particulate – Volume 1 – REF. NO. EPA-650/2–74–031a
Application of Odor Technology to Mobil Sources Emission Instrumentation – REF. NO. EPA-650/2–73–025
Application of Repro-Modeling to the Analysis of a Photochemical Air Pollution Model – REF. NO. EPA-650/4–74–001
Applications of Growth and Sorption Algal Assays – REF. NO. EPA-660/3–73–023
Applications of Reverse Osmosis to Acid Mine Drainage Treatment – REF. NO. EPA-670/2–73–100
Applying Fabric Filtration to Coal Fired Industrial Boilers (A Pilot Scale Investigation) – REF. NO. EPA-650/2–74–058a
Applying Fabric Filtration to Coal Fired Industrial BoilersA Preliminary Pilot Scale Investigation – REF. NO. EPA-650/2–74–058
Appraisal of Neutralization Processes to Treat Coal Mine Drainage – REF. NO. EPA-670/2–73–093
Aqueous Odor Thresholds of Organic Pollutants in Industrial Effluents — Abstracted 600/9–75–001a — REF. NO. EPA-660/4–75–002
Asbestos Fiber Atlas – REF. NO. EPA-650/2–75–036
Assessing Effects on Water Quality by Boating Activity – REF. NO. EPA-670/2–74–072
Assessment and Development Plan for Monitoring of Organics in Storm Flows — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–087
Assessment of the Applicability of Automotive Emission Control Technology to Stationary Engines – REF. NO. EPA-650/2–74–051
Assessment of the Degree of Flexibility in Fuel Distribution Patterns – REF. NO. EPA-600/2–76–076
Assessment of the Federal Noise Research, Development, and Demonstration Activities: FY 73 – FY 75 — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–010
Assessment of the Potential of Clean Fuels and Energy Technology – REF. NO. EPA-600/2–74–001
Assessment of Automatic Sewer Flow Samplers – 1975 – REF. NO. EPA-600/2–75–065
Assessment of Catalysts for Control of NOx from Stationary Power Plants, Phase I, Volume I – Final Report — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–001a
Assessment of Catalysts for Control of NOx from Stationary Power Plants, Phase I, Volume II – Data Bank Citation Indices — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–001b
Assessment of Economic Impact of Air Pollutants on Vegetation in the United States, 1969 and 1971 – REF. NO. EPA-650/5–73–002
Assessment of Particle Control Technology for Enclosed Asbestos Sources—Phase II – REF. NO. EPA-600/2–76–065
Assessment of Particle Control Technology for Enclosed Asbestos Sources – REF. NO. EPA-650/2–74–088
Assessment of Toxicity of Automotive Metallic Emissions. Volume I: Assessment of Fuel Additives Emission Toxicity via Selected Assays of Nucleic Acid and Protein Synthesis – REF. NO. EPA-600/1–76–010a
Assessment of Toxicity of Automotive Metallic Emissions. Volume II: Relative Toxicities of Automotive Metallic Emissions Against Lead Compounds Using Biochemical Parameters – REF. NO. EPA-600/1–76–010b
Assessment of Wet Systems for Residential Refuse Collection: A Summary Report – REF. NO. EPA-670/2–74–068
Assessment Methodology for the Environmental Impact of Water Resource Projects – REF. NO. EPA-600/5–74–016
Atmospheric Emissions from the Asphalt Industry – REF. NO. EPA-650/2–73–046

TITLE INDEX

Atmospheric Emissions from Asphalt Roofing Processes – REF. NO. EPA-650/2-74-101

Atmospheric Emissions From the Petroleum Refining Industry – REF. NO. EPA-650/2-73-017

Atmospheric Measurement of Photochemical Smog Reactions – A Preliminary Analysis – REF. NO. EPA-650/4-74-037

Atmospheric Pollution Potential from Fossil Fuel Resource Extraction, On-Site Processing, and Transportation – REF. NO. EPA-600/2-76-064

Atmospheric Turbulence Properties in the Lowest 300 Meters – REF. NO. EPA-600/4-75-004

Atomic Absorption Analysis of Phosphates in Water – REF. NO. EPA-670/2-73-079

Automated Analysis of Individual Refractory Organics in Polluted Water – REF. NO. EPA-660/2-74-076

Automatic Organic Monitoring System for Storm and Combined Sewers — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-067

Bacterial Zoogloea Formation – REF. NO. EPA-670/2-74-018

Baseline Levels of Platinum and Palladium in Human Tissue – REF. NO. EPA-600/1-76-019

Batch Disinfection of Treated Wastewater With Chlorine at Less Than 1 Degree C – REF. NO. EPA-660/2-73-005

Bench-Scale High-Rate Disinfection of Combined Sewer Overflows With Chlorine and Chlorine Dioxide — Abstracted 600/9-75-001b — – REF. NO. EPA-670/2-75-021

Benefit of Water Pollution Control on Property Values – REF. NO. EPA-600/5-73-005

Bibliography of the Cat – REF. NO. EPA-650/3-74-001

Bibliography of the Cat: Revised Edition – REF. NO. EPA-600/1-76-007

Bibliography of Publications and Reports of the Pacific Northwest Environmental Research Laboratory – REF. NO. EPA-660/9-74-001

Bibliography of R&D Research Reports – July 1973 – REF. NO. EPA-600/5-73-002

Bibliography of Water Pollution Control Benefits and Costs – REF. NO. EPA-600/5-74-028

Big Eddies and Mixing Processes in the Great Lakes – REF. NO. EPA-660/3-73-011

Bio-Environmental Impact of Air Pollution from Fossil Fuel Power Plants – REF. NO. EPA-660/3-74-011

Bioenvironmental Impact of a Coal-Fired Power Plant – First Interim Report, Colstrip, Montana, December 1974 – REF. NO. EPA-600/3-76-002

Bioenvironmental Impact of a Coal-Fired Power Plant Second Interim Report, Colstrip, Montana, June 1975 – REF. NO. EPA-600/3-76-013

Bioflocculation and the Accumulation of Chemicals By Floc-Forming Organisms — Abstracted 600/9-75-001c — REF. NO. EPA-600/2-75-032

Biological Control of Aquatic Vegetation – REF. NO. EPA-660/3-74-007

Biological Conversion of Animal Wastes to Nutrients – REF. NO. EPA-670/2-73-009

Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents – REF. NO. EPA-670/4-73-001

Biological Impact Caused by Changes on a Tropical Reef – REF. NO. EPA-600/3-76-027

Biological Models of Freshwater Communities – REF. NO. EPA-660/3-73-008

Biological Transfer of Plutonium via *in vivo* Labeled Goat's Milk – REF. NO. EPA-600/3-76-025

Biological Treatment of Combined Sewer Overflow at Kenosha, Wisconsin — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-019

Biological Treatment of Concentrated Sugar Beet Wastes – REF. NO. EPA-660/2-74-028

Biologically Allowable Thermal Pollution Limits, Parts I and II – REF. NO. EPA-660/3-74-003

Boiler Modification Cost Survey for Sulfur Oxides Control by Fuel Substitution — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-123

Braxton Sonic Agglomerator Evaluation – REF. NO. EPA-650/2-74-036

Brine Disposal Treatment Practices Relating to the Oil Production Industry – REF. NO. EPA-660/2-74-037

Burner Criteria for NOx Control; Volume I—Influence of Burner Variables on NOx in Pulverized Coal Flames – REF. NO. EPA-600/2-76-061a

BOD, Solids and Nutrient Removal By Foam Flotation – REF. NO. EPA-670/2-73-096

Cadmium in the Environment – III A Toxicological and Epidemiological Appraisal – REF. NO. EPA-650/2-75-049

California Environmental Quality Act: Innovation in State and Local Decision making – REF. NO. EPA-600/5-74-023

Can Federal Procurement Practices be Used to Reduce Solid Waste – REF. NO. EPA-670/5-74-003

Capacity of the Soil as a Natural Sink for Carbon Monoxide – REF. NO. EPA-650/2-73-043

Carbon Oxidation Catalyst Mechanism Study for Fuel Cells – REF. NO. EPA-600/2-76-057

Carbon, Nitrogen, and Phosphorus Removal in Staged NitrificationDenitrification Treatment — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-052

Carbonate Bonding of Taconite Tailings – REF. NO. EPA-670/2-74-001

Carrying Capacity in Regional Environmental Management – REF. NO. EPA-600/5-74-021

Case Study and Business Analysis of the Scrap Industry – REF. NO. EPA-670/5-74-002

Catalytic Combustion, a Pollution-Free Means of Energy Conversion – REF. NO. EPA-650/2-73-018

Catalytic Desulfurization and Denitrogenation — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-063

Catalytic Oxidation of Fuels for NOx Control from Area Sources – REF. NO. EPA-600/2-76-037

Catalytic Oxidation of Sulfur Dioxide Using Isotopic Tracers – REF. NO. EPA-650/2-73-020

Catalyzed Bio-Oxidation and Tertiary Treatment of Integrated Textile Wastewaters – REF. NO. EPA-660/2-74-039

Changes in the Global Energy Balance – REF. NO. EPA-650/2-74-116

Characterization and Control of Asbestos Emissions from Open Sources — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-090

Characterization and Treatment of Combined Sewer Overflows — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-054

Characterization and Treatment of Urban Land Runoff — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-096

Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. I – Summary — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-033a

Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. II – Municipal Sludges — Abstracted 600/9-75-001b — – REF. NO. EPA-670/2-75-033b

TITLE INDEX

Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. III – Utility Coal Ash — Abstracted 600/9–75–001b — REF. NO. EPA 670/2-75-033c

Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. IV – Municipal Incinerator Residues — Abstracted 600/9–75–001b — REF. NO. EPA 670/2-75-033d

Characterization of Atmospheric Emissions from Polyurethane Resin Manufacture – REF. NO. EPA 650/2-74-107

Characterization of Vessel Waste in Duluth-Superior Harbor — Abstracted 600/9–75–001a — REF. NO. EPA 670/2-74-097

Characterization of Waste Waters from the Ethical Pharmaceutical Industry – REF. NO. EPA 670/2-74-057

Charged Droplet Scrubbing of Submicron Particulate – REF. NO. EPA 650/2-74-075

Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1972) – REF. NO. EPA 650/2-73-001

Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1973) – REF. NO. EPA 650/2-73-002

Chemical Characterization of Model Aerosols – REF. NO. EPA 650/3-74-011

Chemical Coagulation/Mixed Media Filtration of Aerated Lagoon — Abstracted 600/9–75–001c — REF. NO. EPA 660/2-75-025

Chemical Conversion of Solid Waste to Useful Products – REF. NO. EPA 670/2-74-027

Chemical Conversion of Wood and Cellulosic Wastes – REF. NO. EPA 670/2-74-015

Chemical Impact of Snow Dumping Practices — Abstracted 600/9–75–001b — REF. NO. EPA 670/2-74-086

Chemical/Biological Relationships Relevant to Ecological Effects of Acid Rainfall — Abstracted 600/9–75–001c — REF. NO. EPA 660/3-75-032

Chemical/Physical and Biological Treatment of Wool Processing Wastes – REF. NO. EPA 660/2-73-036

Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil—Second Phase – REF. NO. EPA 650/2-73-039

Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil – Second Phase – REF. NO. EPA 650/2-74-109

Chemiluminescent Reactive Hydrocarbon Analyzer for Mobile Sources – REF. NO. EPA 650/2-75-069

Chemistry and Mode of Action of Insecticides – REF. NO. EPA 600/1-76-004

Chemistry of Fuel Nitrogen Conversion to Nitrogen Oxides in Combustion – REF. NO. EPA 600/2-76-039

Chemistry of Organmercurials in Aquatic Systems – REF. NO. EPA 660/3-73-012

Chena River—A Study of a Subarctic Stream — Abstracted 600/9–75–001b — REF. NO. EPA 660/3-75-019

Chlorinated Hydrocarbons in the Lake Ontario Ecosystem (IFYGL) — Abstracted 600/9–75–001b — REF. NO. EPA 660/3-75-022

Chlorine and Hydrogen Chloride – REF. NO. EPA 600/1-76-020

Cladophora Distribution in Lake Ontario (IFYGL) — Abstracted 600/9–75–001a — REF. NO. EPA 660/3-74-028

Clean Fuels from Agricultural and Forestry Wastes – REF. NO. EPA 600/2-76-090

Coding Manual for the Quality Assurance Performance Audit for Aerometric Data – REF. NO. EPA 600/4-76-006

Coke Charging Pollution Control Demonstration – REF. NO. EPA 650/2-74-022

Coke Oven Charging Emission Control Test Program – Supplemental Observations – REF. NO. EPA 650/2-74-062a

Coke Oven Charging Emission Control Test Program—Volume I – REF. NO. EPA 650/2-74-062

Coke Oven Smokeless Pushing System Design Manual – REF. NO. EPA 650/2-74-076

Coliform Bacteria Growth and Control in Aerated Stabilization Ba – REF. NO. EPA 660/2-73-028

Collaborative Study of EPA Methods 5,6, and 7 in Fossil Fuel-Fired Steam Generators – REF. NO. EPA 650/4-74-013

Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-025

Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Nitric Acid Plants) – REF. NO. EPA 650/4-74-028

Collaborative Study of Method for the Determination of Particulate Matter Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-021

Collaborative Study of Method for the Determination of Particulate Matter Emissions from Stationary Sources (Municipal Incinerators) – REF. NO. EPA 650/4-74-022

Collaborative Study of Method for the Determination of Particulate Emissions from Stationary Sources (Portland Cement Plants) – REF. NO. EPA 650/4-74-029

Collaborative Study of Method for the Determination of Sulfur Dioxide Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-024

Collaborative Study of Method for the Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources – REF. NO. EPA 650/4-75-003

Collaborative Study of Method for Determination of Stack Gas Velocity and Volumetric Flow Rate in Conjunction with EPA Method 5 – REF. NO. EPA 650/4-74-033

Collaborative Study of Method for Stack Gas Analysis and Determination of Moisture Fraction with Use of Method 5 – REF. NO. EPA 650/4-74-026

Collaborative Study of Method 10 – Reference Method for Determination of Carbon Monoxide Emissions from Stationary Sources – Report of Testing – REF. NO. EPA 650/4-75-001

Collaborative Study of Method 104 – Reference Method for Determination of Beryllium Emission from Stationary Sources – REF. NO. EPA 650/4-74-023

Collaborative Study of Particulate Emissions Measurements by EPA Methods 2, 3, and 5 Using Paired Particulate Sampling Trains (Municipal Incinerators) – REF. NO. EPA 600/4-76-014

Collaborative Study of Reference Method for Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method) (24-hour Sampling) – REF. NO. EPA 650/4-74-027

Collaborative Study of Reference Method for Measurement of Ozone in the Atmosphere (Ozone-Ethylene Chemiluminescent Method) – REF. NO. EPA 650/4-75-016

TITLE INDEX

Collaborative Test of the Chemiluminescent Method for Measurement of NO_2 in Ambient Air – REF. NO. EPA-650/4-75-013
Collaborative Test of the Continuous Colori-Metric Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-011
Collaborative Test of the TGS-ANSA Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-046
Collaborative Testing Methods for Measurements of NO_2 in Ambient Air Volume I – Report of Testing – REF. NO. EPA-650/4-74-019a
Collection and Analysis of Airborne Suspended Particulate Matter Respirable to Humans for Sulfates and Polycyclic Organics — Abstracted 600/9-75-001d — REF. NO. EPA-600/4-75-009
Collection Efficiency Study of the Proposed Method 13 Sampling Train — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-052
Color Characterization Before and After Lime Treatment – REF. NO. EPA-660/2-74-029
Color Removal and Sludge Disposal Process for Kraft Mill Effluents – REF. NO. EPA-660/2-74-008
Color Removal From Kraft Mill Effluents By Ultrafiltration – REF. NO. EPA-660/2-73-019
Combined Sewer Overflow Seminar Papers — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-73-077
Combined Sewer Overflow Treatment by the Rotating Biological Contactor Process – REF. NO. EPA-670/2-74-050
Combustion Control of Pollutants from Multiburner Coal-fired System – REF. NO. EPA-650/2-74-038
Combustion Products from the Incineration of Plastics – REF. NO. EPA-670/2-73-049
Combustion Toilet for Use on Small Boats – REF. NO. EPA-670/2-74-053
Community Health Environmental Surveillance Studies (CHESS) Air Pollution Monitoring Handbook: Manual Methods – REF. NO. EPA-600/1-76-011
Compact Sampling System for Collection of Particulates from Stationary Sources — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-029
Comparability of Nine Methods for Monitoring NO_2 in Ambient Air – REF. NO. EPA-650/4-74-012
Comparative Methylation Chemistry of Platinum, Palladium, Lead, and Manganese – REF. NO. EPA-600/1-76-016
Comparative Toxicity of Sewage-Effluent Disinfection to Freshwater Aquatic Life — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-012
Comparison of Fossil and Wood Fuels – REF. NO. EPA-600/2-76-056
Comparison of Germanium Detectors for Neutron Activation Analysis for Mercury – REF. NO. EPA-660/2-74-045
Comparison of Methods for Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-023
Comparison of Wet Chemical and Instrumental Methods for Measuring Airborne Sulfate – Interim Report – REF. NO. EPA-600/2-76-059
Compilation of Methodology Used for Measuring Pollution Parameters of Sanitary Landfill Leachate — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-011
Composted Municipal Refuse as a Soil Amendment – REF. NO. EPA-670/2-73-063
Comprehensive Management of Phosphorus Water Pollution – REF. NO. EPA-600/5-74-010
Comprehensive Technical Report on all Atmospheric Contaminants Associated with Photochemical Air Pollution – REF. NO. EPA-650/4-75-002
Computer Management of a Combined Sewer System – REF. NO. EPA-670/2-74-022
Concepts for Development of Field Usable Test Atmosphere Generating Devices – REF. NO. EPA-650/4-74-016
Conceptual Design of a Commercial Scale Plant for Chemical Desulfurization of Coal — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-051
Conceptual Model for the Movement of Pesticides Through the Environment – REF. NO. EPA-660/3-74-024
Conditioning of Fly Ash with Sulfamic Acid, Ammonium Sulfate, and Ammonium Bisulfact — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-114
Conditioning of Fly Ash With Sulfur Tri-Oxide and Ammonia – REF. NO. EPA-600/2-75-015
Conference on Recycling Treated Municipal Wastewater Through Forest and Cropland – REF. NO. EPA-660/2-74-003
Conoco Dolomite Hot Gas Clean-up System – REF. NO. EPA-600/2-76-084
Continuous Inplant Hot Gas Blanching of Vegetables – REF. NO. EPA-660/2-74-091
Continuous Measurement of Gas Composition From Stationary Sources — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-012
Continuous Measurement of Total Gas Flowrate from Stationary Sources — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-020
Contributions of Urban Roadway Usage to Water Pollution — Abstracted 600/9-75-001b — REF. NO. EPA-600/2-75-004
Control of Environmental Impacts From Advanced Energy Sources – REF. NO. EPA-600/2-74-002
Control of Hydrocarbon Emissions From Petroleum Liquids — Abstracted 600/9-75-001c — REF. NO. EPA-600/2-75-042
Control of Reclamation (Sinter) Plant Emissions Using Electrostatic Precipitators – REF. NO. EPA-600/2-76-002
Control of Steel Plant Scarfing Emissions Using Wet Electrostatic Precipitators – REF. NO. EPA-600/2-76-054
Control of Sulfur Dioxide Emissions from Copper Smelters: Volume I – Steam Oxidation of Pyritic Copper Concentrates – REF. NO. EPA-650/2-74-085a
Control of Sulfur Dioxide Emissions from Copper Smelters: Volume II – Hydrogen Sulfide Production from Copper Concentrates – REF. NO. EPA-650/2-74-085b
Control of Water Pollution From Cropland, Vol. I – A Manual for Guideline Development – REF. NO. EPA-600/2-75-026a
Control Schemes for the Activated-Sludge Process – REF. NO. EPA-670/2-74-069
Control Technology for Fine Particulate Emissions – REF. NO. EPA-650/2-74-027
Controlling Sulfides in Sanitary Sewers Using Air and Oxygen — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-060
Conversion of Cattle Feedlot Wastes to Ammonia Synthesis Gas – REF. NO. EPA-660/2-74-090
Copper Recovery from Brass Mill Discharge by Cementation with Scrap Iron — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-029
Cost of Dissolved Air Flotation Thickening of Waste Activated Sludge at Municipal Sewage Treatment Plants – REF. NO. EPA-670/2-74-011
Cost Estimating Methodology for Once-Through Cooling Water Discharge Modifications – REF. NO. EPA-600/2-76-078
Cost Evaluation of Alternative Air Quality Strategies – REF. NO. EPA-600/5-74-003
Cost-Effective Design Based Upon Field Derived Parameters – REF. NO. EPA-670/2-74-062

TITLE INDEX

Cost-Effectiveness of a Uniform National Sulfur Emissions Tax – REF. NO. EPA-600/5-74-009
Costs of Filter Pressing Domestic Sewage Sludges – REF. NO. EPA-670/2-74-006
Costs of Hauling and Land Spreading of Domestic Sewage Treatment Plant Sludge – REF. NO. EPA-670/2-74-010
Countermeasures for Pollution From Overflow – The State of the Art — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-090
Crankcase Drainage from In-Service Out-board Motors — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-092
Criteria for Regional Solid Waste Management Planning — Abstracted 600/9-75-001a — REF. NO. EPA-670/5-74-006
Critique of Pollution Time Allocation in River Basin Model – REF. NO. EPA-600/5-73-007
Crop Insurance and Information Services to Control Use of Pesticides – REF. NO. EPA-600/5-74-018
Cross-flow Filtration in Physical-Chemical Treatment of Municipal Sewage Effluents – REF. NO. EPA-600/2-76-025
Culturing and Ecology of Diaptomus Clavipes and Cyclops Vernalis – REF. NO. EPA-660/3-74-006
Defense Technology for Environmental Protection; Volume I— Final Report – REF. NO. EPA-600/2-76-068a
Defense Technology for Environmental Protection; Volume II— Bibliography – REF. NO. EPA-600/2-76-068b
Degradation of Persistent Pesticides by Algae – REF. NO. EPA-600/3-76-022
Degradation Mechanism: Controlling the Bioaccumulation of Hazardous Materials — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-005
Demetallization of Heavy Residual Oils – REF. NO. EPA-650/2-73-041
Demetallization of Heavy Residual Oils – Phase II – REF. NO. EPA-650/2-73-041a
Demineralization of Wastewater by Electrodialysis — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-047
Demonstrated Technology and Research Needs for Reuse of Municipal Wastewater — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-038
Demonstration of a High-Rate Activated Sludge System — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-037
Demonstration of a Non-Aqueous Sewage Disposal System – REF. NO. EPA-670/2-73-088
Demonstration of a State Water Quality Management Information System – REF. NO. EPA-600/5-74-022
Demonstration of the Separation and Disposal of Concentrated Sediments – REF. NO. EPA-660/2-74-072
Demonstration of Reduced Hydrocarbon Emissions from Gasoline Loading Terminals — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-042
Demonstration of Thermal Water Utilization in Agriculture – REF. NO. EPA-660/2-74-011
Demonstration of Three Recirculating Swine Waste Management Systems – REF. NO. EPA-660/2-74-009
Demonstration of Waste Flow Reduction from Households – REF. NO. EPA-670/2-74-071
Design and Control of Incinerators, Volume I – REF. NO. EPA-670/2-73-089A
Design and Control of Incinerators, Volume II – Appendices – REF. NO. EPA-670/2-73-089B
Design and Operating Parameters for Emission Control Studies: White Pine Copper Smelter – REF. NO. EPA-600/2-76-036a
Design and Operating Parameters for Emission Control Studies: Kennecott, Hayden, Copper Smelter – REF. NO. EPA-600/2-76-036b
Design and Operating Parameters for Emission Control Studies: Kennecott, McGill, Copper Smelter – REF. NO. EPA-600/2-76-036c
Design and Operating Parameters for Emission Control Studies: Kennecott, Hurley, Copper Smelter – REF. NO. EPA-600/2-76-036d
Design and Operating Parameters for Emission Control Studies: Magma, San Manuel, Copper Smelter – REF. NO. EPA-600/2-76-036e
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Ajo, Copper Smelter – REF. NO. EPA-600/2-76-036f
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Morenci, Copper Smelter – REF. NO. EPA-600/2-76-036g
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Douglas, Cooper Smelter – REF. NO. EPA-600/2-76-036h
Design and Operating Parameters for Emission Control Studies: ASARCO, El Paso, Copper Smelter – REF. NO. EPA-600/2-76-036i
Design and Operating Parameters for Emission Control Studies: ASARCO, Hayden, Copper Smelter – REF. NO. EPA-600/2-76-036j
Design and Operating Parameters for Emission Control Studies: ASARCO, Tacoma, Copper Smelter – REF. NO. EPA-600/2-76-036k
Design and Performance Considerations for a Pilot Process for Separating Mixed Municipal Refuse — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-040
Design and Simulation of Equalization Basins – REF. NO. EPA-670/2-73-046
Design and Testing of a Prototype Automatic Sewer Sampling System – REF. NO. EPA-600/2-76-006
Design of an Optimum Distillate Oil Burner for Control of Pollutant Emissions – REF. NO. EPA-650/2-74-047
Design of the EPA Semi-Trailer Mobile Air Pollution Laboratory – REF. NO. EPA-650/4-74-017
Design of Cost-Effective Water Quality Surveillance Systems – REF. NO. EPA-600/5-74-004
Design Development and Fabrication of a Prototype High-Vol. Particulate Mass Sampling Train – REF. NO. EPA-650/2-74-067
Design Guidelines for Agricultural Soil Warming Systems Utilizing Waste Heat – REF. NO. EPA-600/3-76-026
Design Parameters for Animal Waste Treatment Systems – REF. HO. EPA-660/2-74-063
Design Trends and Operating Problems in Combustion Modification of Industrial Boilers – REF. NO. EPA-650/2-74-032
Design, Construction, and Testing of a Commercial Prototype Disc Diluter – REF. NO. EPA-650/2-74-055
Design, Development, and Field Test of a Droplet Measuring Device – REF. NO. EPA-650/2-75-018
Design, Fabricate, and Demonstrate an Instrument for Assaying Benzo (a) Pryrene – REF. NO. EPA-650/2-74-068
Design, Fabrication, and Installation of a Particulate Aerodynamic Test Facility – REF. NO. EPA-650/2-74-103
Detailed Cost Estimates For Advanced Effluent Desulfurization Processes — Abstracted 600/9-75-001b — REF. NO. EPA-600/2-75-006
Detection of Oil in Sewers – REF. NO. EPA-600/2-76-027
Detention Tank for Combined Sewer Overflow – Milwaukee, Wisconsin, Demonstration Project – REF. NO. EPA-600/2-75-071
Determination of the Formation Mechanisms and Composition of Photochemical Aerosols – REF. NO. EPA-650/3-73-002
Determination of the Magnitude of SO_2, NO, CO_2, and O_2 Stratification in the Ducting of Fossil Fuel Fired Power Plants — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-053
Determination of Aircraft Turbine Engine Particulates – REF. NO. EPA-650/2-75-055
Determination of Coronal Ozone Production by High Voltage Power Transmission Lines – REF. NO. EPA-650/4-73-003
Determination of Effect of Particulate Exhaust Emissions of Additives and Impurities in Gasoline – REF. NO. EPA-650/2-74-061
Determination of Energetic Characteristics of Urban-Rural Surfaces in the Greater St. Louis Area – REF. NO. EPA-650/4-74-007
Determination of Hazardous Elements in Smelter-Produced Sulfuric Acid – REF. NO. EPA-650/2-74-131

TITLE INDEX

Determination of Height for Stack Near Building—Wind Tunnel Study – REF. NO. EPA-600/4–76–001
Determination of Incinerator Operating Conditions Necessary for Safe Disposal of Pesticides – REF. NO. EPA-600/2–75–041
Determination of Molecular Hydrogen Sulfide — Abstracted 600/9–75–001a — REF. NO. EPA-660/4–75–001
Determination of Volatile Organic Compounds at the UG/1 Level in Water by Gas Chromatography – REF. NO. EPA-670/4–74–009
Determining Tetrafluoroborates, an Evaluation of Fluoroborate Anion Selective Electrode – REF. NO. EPA-600/4–76–005
Development and Evaluation Report: Physical Chemical Marine Sanitation System – REF. NO. EPA-670/2–74–043
Development and Fabrication of Mass Emission Data and Control System for the Stationary Source Simulator – REF. NO. EPA-650/2–73–009
Development and Testing of An Air Monitoring System – REF. NO. EPA-650/2–74–019
Development and Trial Field Application of a Quality Assurance Program for Demonstration Projects – REF. NO. EPA-600/2–76–083
Development of a Biological Monitoring Network-A Test Case: Suitability of Livestock and Wildlife as Biological Monitors for Organophosphorus Contaminants — Abstracted 600/9–75–001b — REF. NO. EPA-680/4–75–003
Development of a Decision Room For Environmental Studies – REF. NO. EPA-600/5–73–011
Development of a High-Purity for High Temperature Particulate Sampling and Analysis – REF. NO. EPA-650/2–73–032
Development of a Methodology for the Assessment of the Effects of Fuels and Additives on Control Devices – REF. NO. EPA-650/2–74–060
Development of a Monthly Industrial Technology Bulletin – REF. NO. EPA-600/2–74–007
Development of a Monthly Technology Bulletin – REF. NO. EPA-600/2–74–005
Development of a Prototype Nitrate Detector – REF. NO. EPA-650/2–74–133
Development of a Prototype Sulfuric Acid Monitor – REF. NO. EPA-650/2–75–013a
Development of a Selective Algaecide to Control Nuisance Algal Growth – REF. NO. EPA-660/3–73–006
Development of a Supplementary Emission Measurements Monitoring System – REF. NO. EPA-650/2–73–008
Development of an Acetylene Monitor at the PPB Level – REF. NO. EPA-650/2–74–056
Development of an Approach to Identification of Emerging Technology and Demonstration Opportunities – REF. NO. EPA-650/2–74–048
Development of an Economic Analytical Framework for Solid Waste Policy Analysis — Abstracted 600/9–75–001d — REF. NO. EPA-600/5–75–014
Development of an Instrumental Monitoring Method for Measurement of Asbestos Concentrations in or Near Sources – REF. NO. EPA-650/2–73–016
Development of A Gas Laser System to Measure Trace Gases by Long Path Absorption Techniques: Volume II – Field Evaluation of Gas Laser System for Ozone Monitoring Final Report – REF. NO. EPA-650/2–74–046b
Development of Air Particulate Monitoring Systems – REF. NO. EPA-650/4–74–030
Development of Air Sampling Methodology – REF. NO. EPA-650/2–75–067
Development of Analytic Techniques to Measure Human Exposure to Fuel Additives – REF. NO. EPA-650/1–74–003
Development of Analytical Techniques for Measuring Ambient Atmospheric Carcinogenic Vapors — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–076
Development of Field Applied DDT – REF. NO. EPA-660/2–74–036
Development of Gas Laser System to Measure Trace Gases by Longpath Absorption Techniques:Volume I – Gas Laser System Modification for Ozone Monitoring Final Report – REF. NO. EPA-650/2–74–046a
Development of Instrumentation for Measurement of Stationary Source Aldehyde Organic Acid and Amine Emissions – REF. NO. EPA-650/2–73–010
Development of Instrumentation for Quantitative Collection of Total Atmospheric Mercury From Ambient Air-Final Report – REF. NO. EPA-650/2–73–052
Development of Low Pressure Impactor – REF. NO. EPA-650/2–74–014
Development of Method for Carcinogenic Vapor Analysis in Ambient Atmospheres – REF. NO. EPA-650/2–74–121
Development of Modeling Technique for Photochemical Air Pollution – REF. NO. EPA-650/4–74–003
Development of On-Shore Treatent System for Sewage from Watercraft Retention System – REF. NO. EPA-670/2–74–056
Development of Phosphate – Free Heavy Duty Detergents – REF. NO. EPA-600/2–74–003
Development of Predictions of Future Pollution Problems – REF. NO. EPA-600/5–74–005
Development of Range Squared and Off-Gating Modifications for a Lidar System – REF. NO. EPA-650/2–73–040
Development of Sample Preparation Methods for Development of Marine Organisms – REF. NO. EPA-660/3–74–026
Development of Sampling and Analytical Methods of Lime/Limestone Wet Scrubbing Tests – REF. NO. EPA-650/2–74–024
Development of Sampling Devices for Gaseous Atmospheric Tracers – REF. NO. EPA-650/4–74–050
Development of Sampling Method for Total Atmospheric Selenium — Abstracted 600/9–75–001b — REF. NO. EPA-650/2–74–124
Development of Sampling Procedures for Polycyclic Organic Matter and Polychlorinated Biphenyls – REF. NO. EPA-650/2–75–007
Development of Scanning Electron Microscopy for Measurement of Airborne Asbestos Concentrations – REF. NO. EPA-650/2–75–029
Development of Selective Hydrocarbon Sampling System and Field Evaluation with Conventional System – REF. NO. EPA-650/2–75–050
Development of Technical Specifications for Standard Gas-Diluent Mixtures for Use in Measurement of Mobile Source Emissions – REF. NO. EPA-650/4–74–020
Development of Urban Air Quality Simulation Model With Compatible RAPS Data – Vol. I – REF. NO. EPA-600/4–75–005a
Development of X-Ray Fluorescence Spectroscopy in Element Analysis of Particulate Matter Phase II: Evaluation of Commerical Multiple Crystal Spectrometer Instruments – REF. NO. EPA-650/2–73–006
Development Strategy for Pollutant Dosimetry – REF. NO. EPA-600/2–76–034
Device Collection and Assay of Ambient Gases – REF. NO. EPA-650/2–74–006
Devices for On – Board Treatment of Waste from Vessels — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–091
Diffusion in Turbulent Surface Layer and the Development of an Atmospheric Wind Tunnel – REF. NO. EPA-650/4–74–041
Direct Determination of Metals in Air – REF. NO. EPA-650/2–73–011
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Summary Report — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050a

TITLE INDEX

Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix A. Weather and Lake Level Data, Water Quality Data, and Raw Water Pumping Schedule — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050b
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix B. Design, Installation and Operation of Pilot Filters. Appendix C. Summary of Data for Individual Filter Runs — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050c
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix D. Head Loss and Turbidity Curves for Individual Filter Runs — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050d
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix E. Ontario Research Foundation Electron Microscope Analysis Results. Appendix F. EPA National Water Quality Laboratory X-Ray Diffraction Analysis Results. Appendix G. University of Minnesota at Duluth Electron Microscope Analysis Results — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050e
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix H. Comparison of Turbidimeters — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050f
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix I. Diatomite Filters for Asbestiform Fiber Removal from Water — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–050g
Direct Use of Coal in a Fuel Cell: Feasibility Investigation – REF. NO. EPA-650/2–75–040
Directory of EPA, State and Local Environmental Quality Monitoring and Assessment Activities — Abstracted 600/9–75–001b — REF. NO. EPA-600/4–75–001
Disinfection of Sewage Effluents – REF. NO. EPA-670/2–73–029
Dispersal Processes in Lake Huron – REF. NO. EPA-660/2–74–082
Dispersion in Hydrologic and Coastal Environments – REF. NO. EPA-660/3–73–010
Dispersion From Pall Pack – REF. NO. EPA-600/4–75–006
Disposal and Utilization of Waste Kiln Dust From Cement Industry — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–043
Disposal of By-products from Non-regenerable Flue Gas Desulfurization Systems: Initial Report – REF. NO. EPA-650/2–74–037a
Disposal of Flue Gas Cleaning Wastes: EPA Shawnee Field Evaluation—Initial Report – REF. NO. EPA-600/2–76–070
Distributions of Industrial and Commercial-Institution External Combustion Boilers — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–021
Drift Data Acquired on Mechanical Salt Water Cooling Devices – REF. NO. EPA-650/2–75–060
Dry Caustic Heating of Clingstone Peaches on a Commercial Scale – REF. NO. EPA-660/2–74–092
Dual Functioning Swirl Combined Sewer Overflow Regulator/ Concentrator – REF. NO. EPA-670/2–73–059
Dynactor Scrubber Evaluation — Abstracted 600/9–75–001b — REF. NO. EPA-650/2–74–083
Dynamic Behavior of Vinyl Chloride in Aquatic Ecosystems – REF. NO. EPA-600/3–76–001
Dynamic Water Quality Forecasting and Management – REF. NO. EPA-660/3–73–009
Dynamics and Diffusion in the Great Lakes – REF. NO. EPA-660/2–74–083
Early Life History and Feeding of Young Mountain Whitefish – REF. NO. EPA-660/3–73–019
Economic and Environmental Benefits from Improving Electrical Rate Structures – REF. NO. EPA-600/5–74–033
Economic and Technological Impediments to Recycling Obsolete Ferrous Solid Waste – REF. NO. EPA-670/5–73–021
Economic Analysis of the Processing and Disposal of Refuse Sludges – REF. NO. EPA-670/2–74–037
Economic Assessment of Backfitting Power Plants with ClosedCycle Cooling Systems – REF. NO. EPA-600/2–76–050
Economic Damages of Air Pollution – REF. NO. EPA-600/5–74–012
Economic Damages to Household Systems From Water Supply Use – REF. NO. EPA-600/5–73–001
Economic Disincentives for Pollution Control: Legal Political and Administrative Dimensions – REF. NO. EPA-600/5–74–026
Economic Evaluation of Technical Systems for Scrap Tire Recycling – REF. NO. EPA-600/5–75–019
Economic Welfare Impacts of Urban Noise – REF. NO. EPA-600/5–76–002
Economical Residential Pressure Sewer System with No Effluent – REF. NO. EPA-600/2–75–072
Effect of Carbon to Nitrogen Ratio on Activated Sludge Subsidence and Dewatering Characteristics — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–74–025
Effect of Carbon Monoxide on Time Perception – REF. NO. EPA-650/1–74–005
Effect of Chemical Composition on the Surface Resistivity of Fly Ash — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–017
Effect of Duck Hepatitis Virus on Pesticide Toxicity – REF. NO. EPA-600/1–76–003
Effect of Filtration Parameters on Dust Cleaning Fabrics – REF. NO. EPA-600/2–76–074
Effect of Fuel Additives Study – REF. NO. EPA-650/2–74–096
Effect of Fuel Sulfur on NO_x Emissions from Premixed Flames — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–075
Effect of Gas Turbine Efficiency and Fuel Cost on Cost Producing Electric Power – REF. NO. EPA-650/2–74–041
Effect of Gasoline Additives on Gaseous Emissions – REF. NO. EPA-650/2–75–014
Effect of Gasoline Additives on Gaseous Emissions, Part II – REF. NO. EPA-600/2–76–026
Effect of Geographical Variation on Performance of Recirculating Cooling Ponds – REF. NO. EPA-660/2–74–085
Effect of Mechanical Cooling Devices on Ambient Salt Concentration – REF. NO. EPA-600/3–76–034
Effect of Meteorological Variables on Temperature Changes in Flowing Streams — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–002
Effect of Mirex and Carbofuran on Estuarine Microorganisms — Abstracted 600/9–75–001b — REF. NO. EPA-660/3–75–024
Effect of Phosphorus Removal Processes on Algal Growth – REF. NO. EPA-660/3–73–015
Effect of Processing Poultry Manure on Disease Agents – REF. NO. EPA-670/2–73–041
Effectiveness of Selected Fuel Additives in Controlling Pollution Emissions From Residual Oil-Fired Boilers – REF. NO. EPA-650/2–73–031
Effects of Air Pollutants on Textile Fibers and Dyes – REF. NO. EPA-650/3–74–008
Effects of Atmospheric Aerosols on Infrared Irradiance at the Earth's Surface in a Non-Urban Environment – REF. NO. EPA-650/4–75–017
Effects of Chlorine and Sulfite Reduction on Lake Michigan Invertebrates – REF. NO. EPA-600/3–76–036
Effects of Crude Oil and Some of Its Components on Young Coho and Sockeye Salmon – REF. NO. EPA-660/3–73–018
Effects of Design and Operating Variables on NO_x from Coal-Fired Furnaces— Phase I – REF. NO. EPA-650/2–74–002a
Effects of Design and Operating Variables on NOx from Coal-Fired Furnaces – Phase II – REF. NO. EPA-650/2–74–002b

TITLE INDEX

Effects of Exhaust from Two-Cycled Outboard Engines – REF. NO. EPA-670/2-74-063
Effects of Forest Fires on Water Quality in Interior Alaska --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-75-020
Effects of Gaseous Pollutants on Materials—A Chamber Study – REF. NO. EPA-600/3-76-015
Effects of Low Levels of Ozone and Temperature Stress – REF. NO. EPA-600/1-76-001
Effects of Mirex and Methoxychlor on Striped Mullet, Mugil cephalus L. --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-015
Effects of Mirex, Methoxychlor, and Malathion on Development of Crabs – REF. NO. EPA-600/3-76-007
Effects of Nozzle Design and Sampling Techniques on Aerosol Measurements – REF. NO. EPA-650/2-74-070
Effects of Oxidant and Sulfate Interaction on Production of Lung Lesions – REF. NO. EPA-600/1-76-009
Effects of Ozone on Nitrogen Fixation in Ladino Clover – REF. NO. EPA-600/3-76-031
Effects of Protozoa on the Fate of Particulate Carbon – REF. NO. EPA-660/3-73-007
Effects of Sulfur Dioxide and/or Ozone on Several Oat Varieties – 1975 Annual Report – REF. NO. EPA-600/3-76-032
Effects of Temperature on Diseases of Salmonid Fishes – REF. NO. EPA-660/3-73-020
Effects of Transient Operating Conditions on Steam – Electric Generator Emissions – REF. NO. EPA-600/2-75-022
Effects of Water Pollution Controls on Solid Waste Generation, 1971 to 1985: Executive Summary --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-095a
Efficiencies in Power Generation – REF. NO. EPA-650/2-74-021
Egg Breaking and Processing Waste Control and Treatment --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-019
Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume I – REF. NO. EPA-600/2-76-049a
Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume II—Appendix – REF. NO. EPA-600/2-76-049b
Electrochemical Analysis of Sulfidic and Amine Odorants – REF. NO. EPA-600/2-76-021
Electrochemical Carbon Regeneration – REF. NO. EPA-670/2-75-028
Electrochemical Removal of Heavy Metals from Acid Mine Drainage – REF. NO. EPA-670/2-74-023
Electrolytic Treatment of Job Shop Metal Finishing Wastewater --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-028
Electrostatic Precipitator Performance Model --- Abstracted 600/9-75-001b --- REF. NO. EPA-650/2-74-132
Elimination of Washer Slimes from the Production of Phosphate Chemicals – REF. NO. EPA-600/2-76-045
Enclosed Coke Pushing and Quenching System Design Manual – REF. NO. EPA-650/2-73-028
Energy Conservation Techniques for the Iron Foundry Cupola – REF. NO. EPA-600/2-76-071
Energy Consumption: Fuel Utilization and Conservation in Industry – REF. NO. EPA-650/2-75-032d
Energy Consumption: Paper, Stone/Clay/Glass/Concrete, and Food Industries --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-032c
Energy Consumption: The Chemical Industry --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-032a
Energy Consumption: The Primary Metals and Petroleum Industries --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-032b
Energy Supply, Demand/Need, and the Gaps Between: Volume I – An Overview – REF. NO. EPA-600/2-76-044a
Energy Supply, Demand/Need, and the Gaps Between: Volume II – Monographs and Working Papers – REF. NO. EPA-600/2-76-044b
Enforcement Economics in Air Pollution Control – REF. NO. EPA-600/5-73-014
Enhancing Trickling Filter Plant Performance By Chemical Precipitation – REF. NO. EPA-670/2-73-060
Entrainment Separators for Scrubbers – Final Report – REF. NO. EPA-650/2-74-119b
Entrainment Separators for Scrubbers – Initial Report – REF. NO. EPA-650/2-74-119a
Environment: A Bibliography of Social Science and Related Literature – REF. NO. EPA-600/5-74-011
Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY '73 – REF. NO. EPA-660/2-74-078
Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY 74 --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/4-75-004
Environmental Applications of Advanced Instrumental Analysis: Assistance Projects, FY 72 – REF. NO. EPA-660/2-73-013
Environmental Assessment of Future Disposal Methods for Plastics in Municipal Solid Waste --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-058
Environmental Assessment Perspectives – REF. NO. EPA-600/2-76-069
Environmental Base and Management Study – Atchafalaya Basin, Louisiana --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/5-75-006
Environmental Catalog of Industrial Processes; Volume I—Oil/ Gas Production Petroleum Refining, Carbon Black, and Basic Petrochemicals – REF. NO. EPA-600/2-76-051a
Environmental Catalog of Industrial Processes; Volume II— Industrial Organic Chemicals – REF. NO. EPA-600/2-76-051b
Environmental Catalog of Industrial Processes; Volume III— Organic Dyes/Pigments and Pesticides – REF. NO. EPA-600/2-76-051c
Environmental Catalog of Industrial Processes; Volume V— Brine/Evaporite Chemicals, Fluorocarbon/Hydrogen Fluoride, and Gypsum/Wallboard – REF. NO. EPA-600/2-76-051e
Environmental Catalog of Industrial Processes; Volume VII— Iron and Steel, Primary Aluminum, and Titanium – REF. NO. EPA-600/2-76-051g
Environmental Chamber Studies of Atmospheric Aerosols – REF. NO. EPA-650/4-74-009
Environmental Consideration in Future Energy Growth – REF. NO. EPA-600/5-73-004
Environmental Considerations for Oil Shale Development – REF. NO. EPA-650/2-74-099
Environmental Exposure System for Studying Air Pollution Damage to Materials – REF. NO. EPA-650/3-75-001
Environmental Guidelines for Development Roads in the Subarctic – REF. NO. EPA-660/3-74-009
Environmental Impact Requirements in the States: NEPA's Offspring – REF. NO. EPA-600/5-74-006
Environmental Indices for the Los Angeles Database --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/5-75-017
Environmental Management and Local Government – REF. NO. EPA-600/5-73-016
Environmental Management in the Malibu Watershed: Institutional Framework --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/5-75-018
Environmental Problem Definition for Petroleum Refineries, Synthetic Natural Gas Plants, and Liquefied Natural Gas Plants --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-068

TITLE INDEX

Environmental Protection in Surface Mining of Coal – REF. NO. EPA-670/2-74-093
Environmental Radioactivity Laboratory Intercomparison Studies Program, 1973 – 1974 – REF. NO. EPA-680/4-73-001b
Environmental Radioactivity Laboratory Intercomparison Studies Program—1975 — Abstracted 600/9-75-001b — REF. NO. EPA-680/4-75-002b
Environmental Requirements and Pollution Tolerance of Freshwater Diatoms – REF. NO. EPA-670/4-74-005
Environmental Requirements of Selected Estuarine Ciliated Protozoa — Abstracted 600/9-75-001b — REF. NO. EPA-660/3-74-031
Environmental Research in 1973, Annual Report – REF. NO. EPA-670/9-74-001
Environmental Research Outlook, FY 1976 through 1980; Report to Congress – REF. NO. EPA-600/9-76-003
Environmental Research Publications – REF. NO. EPA-670/9-73-004
Environmental Research Publications 1971–1975 — Abstracted 600/9-75-001a — REF. NO. EPA-670/9-75-001
Environmental Studies of an Arctic Estuarine System — Abstracted 600/9-75-001c — REF. NO. EPA-660/3-75-026
Environmental Trace Materials: Computer Coupled Radioactivation Analysis – REF. NO. EPA-600/3-75-015
Epidemiology of Chronic Respiratory Disease: A Literature Review – REF. NO. EPA-650/1-74-007
Equimolar NO_2 Absorption into Magnesia Slurry – A Pilot Feasibility Study – REF. NO. EPA-650/2-73-015
Estimating Kinetics of Combustion Especially Reactions Involving NO_x and SO_x – REF. NO. EPA-600/2-75-019
Estimating Nutrient Loadings of Lakes from Non-Point Sources – REF. NO. EPA-660/3-74-020
Estimating Water Quality Benefits – REF. NO. EPA-600/5-74-014
Estimation of Polychlorinated Biphenyls in the Presence of DDT-Type Compounds – REF. NO. EPA-670/4-74-004
Eutrophication of Lake Tahoe Emphasizing Water Quality – REF. NO. EPA-660/3-74-034
Eutrophication of Surface Waters—Lake Tahoe's Indian Creek Reservoir — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-003
Evaluation and Collaborative Study of Method for Visual Determination of Opacity of Emissions from Stationary Sources – REF. NO. EPA-650/4-75-009
Evaluation and Demonstration of the Capillary Suction Sludge Dewatering Device – REF. NO. EPA-670/2-74-017
Evaluation and Modification of Fluoride Sampling and Analytical Methods – REF. NO. EPA-650/2-73-007
Evaluation of a Computer Program for GC-MS Specific Ion Monitoring – REF. NO. EPA-660/2-74-002
Evaluation of a Continuous Colorimetric Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-022
Evaluation of a Microwave-Induced Plasma Spectrometer for Trace Analysis – REF. NO. EPA-660/2-73-009
Evaluation of a Particulate Scrubber on a Coal-Fired Utility Boiler — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-074
Evaluation of a Pneumatic Barrier for Oil Containment – REF. NO. EPA-600/2-76-030
Evaluation of the Arsenite Procedure for the Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-048
Evaluation of the Bio-Disc Treatment Process for Summer Camp Application – REF. NO. EPA-670/2-73-022
Evaluation of the Correlation Spectrometer as an Area SO_2 Monitor — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-077
Evaluation of the Fluidized-Bed Combustion Process Volume I – Pressurized Fluidized-Bed Combustion Process Development and Evaluation – REF. NO. EPA-650/2-73-048a
Evaluation of the Fluidized-Bed Combustion Process Volume II – Fluidized Bed Boiler Combined-Cycle Power Plant Development—Volume I Appendices – REF. NO. EPA-650/2-73-048b
Evaluation of the Fluidized-Bed Combustion Process Volume III – Pressurized Fluidized-Bed Boiler Development Plant Design – REF. NO. EPA-650/2-73-048c
Evaluation of the Fluidized-Bed Combustion Process Volume IV – Fluidized-Bed Gasification Desulfurization – REF. NO. EPA-650/2-73-048d
Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase I – REF. NO. EPA-650/4-75-018a
Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase II – REF. NO. EPA-650/4-75-018b
Evaluation of the Proposed Ambient Air Monitoring Equivalent and Reference Methods – REF. NO. EPA-650/4-75-014
Evaluation of the Regenerative Pressurized Fluidized-Bed Combustion Process – REF. NO. EPA-650/2-74-012
Evaluation of the Ryan's Waterproof Thermograph (Model F-30) – REF. NO. EPA-670/4-74-007
Evaluation of the Triethanolamine Procedure for the Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-031
Evaluation of Adjustment Assistance Program with Application for Pollution Control – REF. NO. EPA-600/5-74-029
Evaluation of Aeronetic Two-Phase Jet Scrubber – REF. NO. EPA-650/2-74-129
Evaluation of Alternative Methods For Financing Municipal Waste Treatment Works – REF. NO. EPA-600/5-75-001
Evaluation of Centrifield Scrubber – REF. NO. EPA-650/2-74-129a
Evaluation of Drainage for Salinity Control in Grand Valley – REF. NO. EPA-660/2-74-084
Evaluation of Effects of NO, CO_2 and Sampling Flow Rate on Arsenite Procedure for Measurement of NO_2 in Ambient Air – REF. NO. EPA-650/4-75-019
Evaluation of Eight Novel Fine Particle Collection Devices – REF. NO. EPA-600/2-76-035
Evaluation of Electric Field Fabric Filtration – REF. NO. EPA-600/2-76-041
Evaluation of Electrofluidized Bed – REF. NO. EPA-600/2-76-040
Evaluation of Electrostatic Augmentation for Fine Particle Control – REF. NO. EPA-600/2-76-055
Evaluation of Equations for Designing Ammoniacal Scrubbers to Remove Sulfur Oxides from Waste Gas – REF. NO. EPA-650/2-74-035
Evaluation of Feasibility and Economic Implication of Pricing Mechanisms in Solid Waste Management — Abstracted 600/9-75-001a — – REF. NO. EPA-670/5-75-001
Evaluation of Flame Emission Determination of Phosphorus in Water – REF. NO. EPA-660/2-73-007
Evaluation of Gas Phase Titration Technique as Used for Calibration of Nitrogen Dioxide Chemiluminescence Analyzers – REF. NO. EPA-650/4-75-021
Evaluation of Hazardous Wastes Emplacement in Mined Openings – REF. NO. EPA-600/2-75-040
Evaluation of Health Hazards Associated With Solid Waste Sewage Sludge Mixtures — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-023
Evaluation of Instrumentation for Monitoring Total Mercury Emissions from Stationary Sources – REF. NO. EPA-650/2-74-039

TITLE INDEX

Evaluation of Irrigation Scheduling for Salinity Control in Grand Valley – REF. NO. EPA-660/2-74-052
Evaluation of Low-Sulfur Western Coal Characteristics, Utilization, and Combustion Experience --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-046
Evaluation of Marketable Effluent Permit Systems – REF. NO. EPA-600/5-74-030
Evaluation of Mathematical Models for Temperature Prediction in Deep Reservoirs --- Abstracted 600/9-75-001c — REF. NO. EPA-660/3-75-038
Evaluation of MTF for Testing Hazardous Material Spill Control Equipment --- Abstracted 600/9-75-001b — REF. NO. EPA-670/2-74-073
Evaluation of National Boiler Inventory --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-067
Evaluation of Odor Measurement Techniques Volume I – Animal Rendering Industry – REF. NO. EPA-650/2-74-008a
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: Synthane Process – REF. NO. EPA-650/2-74-009b
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section 2. SRC Process – REF. NO. EPA-650/2-74-009f
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification: Section 5. BI-GAS Process – REF. NO. EPA-650/2-74-009g
Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 6. HYGAS Process – REF. NO. EPA-650/2-74-009h
Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 7. U-Gas Process – REF. NO. EPA-650/2-74-009i
Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 8. Winkler Process – REF. NO. EPA-650/2-74-009j
Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Coal Treatment: Section 1. Meyers Process – REF. NO. EPA-650/2-74-009k
Evaluation of Pollution Control in Fossil Fuel Conversion Processes (Analytical Test Plan) – REF. NO. EPA-650/2-74-009l
Evaluation of Pollution Control in Fossil Fuel Conversion Processes – Liquefaction: Section 3. H-Coal Process – REF. NO. EPA-650/2-74-009m
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification Section I: Koppers-Totzek Process – REF. NO. EPA-650/2-74-009a
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: CO2 Acceptor Process – REF. NO. EPA-650/2-74-009d
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section I. COED Process – REF. NO. EPA-650/2-74-009e
Evaluation of Pollution Control in Fossil Fuel Conversion Processess Gasification; Section I; Lurgi Process – REF. NO. EPA-650/2-74-009c
Evaluation of Polymeric Clarification of Meat-Packing and Domestic Wastewaters – REF. NO. EPA-660/2-74-020
Evaluation of Prechamber Spark Ignition Engine Concepts --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-023
Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes, Part 2 – REF. NO. EPA-650/2-74-098a
Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes – REF. NO. EPA-650/2-74-098
Evaluation of Semipermeable Membranes for Concentration of Organic Contaminants in Drinking Water --- Abstracted 600/9-75-001c -— REF. NO. EPA-670/1-75-001
Evaluation of Sonics for Fine Particle Control – REF. NO. EPA-600/2-76-001
Evaluation of Stationary Source Particulate Measurement Methods – Volume I, Portland Cement Plants – REF. NO. EPA-650/2-75-051a
Evaluation of Sulfur Dioxide Emission Control Options for Iowa Power Boilers – REF. NO. EPA-650/2-74-127
Evaluation of Systems for Control of Emissions from Rocket Motors – Phase I – REF. NO. EPA-600/2-75-021a
Evaluation of Tailings Ponds Sealants – REF. NO. EPA-660/2-74-065
Evaluation of Thermal Agglomeration for Fine Particle Control – REF. NO. EPA-600/2-76-067
Evaluation of Three Combined Sewage Overflow Treatment Alternatives --- Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-079
Evaluation of Turbulent Agglomeration for Fine Particle Control – REF. NO. EPA-600/2-76-066
Evaluation of TGS-ANSA Procedure for Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-047
Excerpts from Control of Infiltration and Inflow into Sewer Systems and Prevention and Correction of Excessive Infiltration and Inflow Into Sewer Systems – REF. NO. EPA-670/9-74-004
Executive Summary of Three EPA Demonstration Programs in Erosion and Sediment Control – REF. NO. EPA-660/2-74-073
Experimental High Ash Papermill Sludge Landfill – First Annual Report --- Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-076a
Experimental High Ash Papermill Sludge Landfill – Second Annual Report --- Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-076b
Explicit Calibration of the Pills II System – REF. NO. EPA-660/2-73-011
Exploratory Study of Factors Affecting Aerosol Formation – REF. NO. EPA-650/3-75-002
Extended Aeration Sewage Treatment in Cold Climate --- Abstracted 600/9-75-001a — REF. NO. EPA-660/2-74-070
EPA Alkali Scrubbing Test Facility: Limestone Wet Scrubbing Test Result – REF. NO. EPA-650/2-74-010
EPA Alkali Scrubbing Test Facility: Sodium Carbonate and Limestone Test Results – REF. NO. EPA-650/2-73-013
EPA Alkali Scrubbing Test Facility: Advanced Program (First Progress Report) --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-050
EPA Alkali Scrubbing Test Facility: Summary of Testing Through October 1974 --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-047
EPA Fine Particle Scrubber Symposium (San Diego, 5/28-30/74) – REF. NO. EPA-650/2-74-112
EPA Program Status Report – Synthetic Fuels Program --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-070
Fabric Boom Concept for Containment and Collection of Floating Oil – REF. NO. EPA-670/2-73-069
Fabric Filter Cleaning Studies --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-009
Fabrication and Installation of the Stationary Source Simulator – REF. NO. EPA-650/2-75-015
Fabrication of Monitoring System for Determining Mass and Composition of Aerosol as a Function of Time – REF. NO. EPA-650/2-75-048

TITLE INDEX

Fabrication of Single Cell Protein From Cellulosic Wastes — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–032
Fate and Effects of Trace Elements in Sewage Sludge When Applied to Agricultural Lands: A Literature Review Study – REF. NO. EPA-670/2–74–005
Fate of Nitrogen Oxides in the Atmosphere – REF. NO. EPA-600/3–76–030
Fate of Select Pesticides in the Aquatic Environment – REF. NO. EPA-660/3–74–025
Fate of Trace Constituents of Coal During Gasification – REF. NO. EPA-650/2–73–004
Feasibility of a CW Lidar Technique for Measurement of Plume Opacity – REF. NO. EPA-650/2–73–037
Feasibility of Emission Standards Based on Particle Size – REF. NO. EPA-600/5–74–007
Feasibility of Flux Force/Condensation Scrubbing for Fine Particulate Collection – REF. NO. EPA-650/2–73–036
Feasibility of Hydraulic Transport and Treatment of Ground Household Refuse Through Sewers – REF. NO. EPA-670/2–74–019
Feasibility of Hydraulic Transport of Ground Household Refuse Through Sewer Appurtenances – REF. NO. EPA-670/2–74–021
Feasibility of Metrac System for Regional Air Pollution Study – REF. NO. EPA-650/4–74–051
Feasibility of Overflow Overland Flow Treatment of Feedlot Runoff – REF. NO. EPA-660/2–74–062
Feasibility of Overland Flow for Treatment of Raw Domestic Wastewater – REF. NO. EPA-660/2–74–087
Feasibility of 5 gpm Dynactor/Flash Magnetic Separator System to Treat Spilled Hazardous Materials — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–004
Feasibility Study of a New Surface Mining Method "Longwall Stripping" – REF. NO. EPA-670/2–74–002
Feasibility Study of the Use of Resonance Scattering for the Remote Detection of SO_2 – REF. NO. EPA-650/2–74–020
Feasibility Study of Use of Molten Salt Technology for Pyrolysis of Solid Waste — Abstracted 600/9–75–001d — REF. NO. EPA-670/2–75–014
Federal Aircraft Noise Research, Development, and Demonstration Programs: FY 73 – FY 75 — Abstracted 600/9–75–001b — REF. NO. EPA-600/2–75–003
Federal Machinery Noise Research, Development and Demonstration: FY 73–75 – REF. NO. EPA-600/2–75–008
Federal Noise Effects Research: FY 73 – FY 75 — Abstracted 600/9–75–001a — REF. NO. EPA-600/1–75–001
Federal Surface Vehicle Noise Research, Development, and Demonstration Program: FY 73 – FY 75 — Abstracted 600/9–75–001a — REF. NO. EPA-600/2–75–002
Ferric Chloride and Organic Polyelectrolytes for the Removal of Phosphorus – REF. NO. EPA-670/2–73–103
Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions – Volume I – REF. NO. EPA-650/2–75–053a
Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions – Volume II – REF. NO. EPA-650/2–75–053b
Field Measurements of Particle Size Distribution Sizing Devices – REF. NO. EPA-650/2–73–035
Field Test Sampling/Analytical Strategies and Implementation Cost Estimates: Coal Gasification and Flue Gas Desulfurization – REF. NO. EPA-600/2–76–093b
Field Testing and Evaluation of Methods for Measuring Visibility – REF. NO. EPA-650/2–75–039
Field Testing: Application of Combustion Modifications to Control NO_x Emissions for Utility Boilers – REF. NO. EPA-650/2–74–066
Field Testing: Application of Combustion Modifications to Control Pollution Emissions from Industrial Boilers – Phase II – REF. NO. EPA-600/2–76–086a
Field Testing: Application of Combustion Modifications to Control Pollutant Emissions from Industrial Boilers – Phase I – REF. NO. EPA-650/2–74–078a
Final Report Deep Water Pilot Plant Treatability Study – REF. NO. EPA-660/2–73–038
Financial Incentives and Pollution Control: A Case Study — Abstracted 600/9–75–001b — REF. NO. EPA-600/5–75–007
Fine Particle Scrubber Performance Tests – REF. NO. EPA-650/2–74–093
First Annual Progress Report on a Study of Corrosion in Municipal Incinerators – REF. NO. EPA-670/2–73–032
First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix B – Optimal Routing of Solid Waste Collection Vehicles — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–035b
First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix A – A Linear Programming Approach for the Traveling Salesman Problem — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–035a
First Annual Reports of EPA Grants Funded for IFYGL – REF. NO. EPA-660/3–73–021
Fisheries and Energy Production: A Symposium — Abstracted 600/9–75–001a — REF. NO. EPA-600/3–75–001
Flame Characterization Probes – REF. NO. EPA-650/2–74–023
Flare Systems Study – REF. NO. EPA-600/2–76–079
Flow Establishment and Initial Entrainment of Heated Water Surface Jets — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–014
Fluidized Bed Combustion Process Evaluation (Phase I – Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume I – Summary — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–027a
Fluidized Bed Combustion Process Evaluation (Phase I – Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume II – Appendices — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–027b
Fluidized Bed Combustion Process Evaluation Phase II – Pressurized Fluidized Bed Coal Combustion Development – REF. NO. EPA-650/2–75–027c
Fluorescence Immunoassay Technique for Detecting Organic Environmental Contaminants – REF. NO. EPA-650/1–75–004
Fluoride Emissions from Phosphoric Acid Plant Gypsum Ponds – REF. NO. EPA-650/2–74–095
Forecast of the Effects of Air and Water Controls of Solid Waste Generation — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–095b
Formation of Aerosols in a Photochemical Fast Row Reactor – REF. NO. EPA-650/3–75–004
Formation of Halogenated Organics By Chlorination of Water Supplies — Abstracted 600/9–75–001b — REF. NO. EPA-600/1–75–002
Fortran Programs for Analyzing Collaborative Test Date: Part I – General Statistics — Abstracted 600/9–75–001a — REF. NO. EPA-670/4–75–004a
Fortran Programs for Analyzing Collaborative Test Date: Part II – Scatter Plots — Abstracted 600/9–75–001a — REF. NO. EPA-670/4–75–004b
Fractional Efficiency of a Utility Boiler Baghouse – Nuclea Generating Plant – REF. NO. EPA-600/2–75–013a

TITLE INDEX

Fractional Efficiency of a Utility Boiler Baghouse: Sunbury Steam-Electric Station – REF. NO. EPA-600/2–76–077a
Fuel Gas Environmental Impact: Phase Report — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–078
Fuels Technology: A State-of-the-Art Review — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–034
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume I – REF. NO. EPA-650/2–73–019a
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume II – Appendices A through H – REF. NO. EPA-650/2–73–019b
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume III – Appendices I through L – REF. NO. EPA-650/2–73–019c
Future Direction of Urban Water Models – REF. NO. EPA-600/2–76–058
Future Dredging Quantities in the Great Lakes — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–74–029
FIRST YEAR WORK PLAN for a Technology Assessment of Western Energy Resource Development – REF. NO. EPA-600/5–76–001
Gas and Leachate from Landfills: Formation, Collection, and Treatment – REF. NO. EPA-600/9–76–004
Gas Requirements to Pressurize Abandoned Deep Mines – REF. NO. EPA-670/2–73–054
Gasification of Fossil Fuels Under Oxidative, Reductive, and Pyrolytic Conditions – REF. NO. EPA-650/2–73–042
Gasification/Combined-Cycle System for Electric Power Generation – REF. NO. EPA-600/2–76–085
General Motors/Environmental Protection Agency Sulfate Dispersion Experiment Selected EPA Research Papers – REF. NO. EPA-600/3–76–035
Geochemical Interactions of Heavy Metals in Southeastern Salt Marsh Environments – REF. NO. EPA-600/3–76–023
Granite Industry Wastewater Treatment – REF. NO. EPA-660/2–74–040
Great Lakes Water Quality — Status of Pertinent EPA Research — Abstracted 600/9–75–001a — REF. NO. EPA-660/9–74–002
Ground Water Contamination in the Northeast States – REF. NO. EPA-660/2–74–056
Ground Water Pollution Features of Federal and State Laws and Regulations – REF. NO. EPA-600/4–73–001a
Ground-Water Pollution Problems in the Northwestern United States — Abstracted 600/9–75–001b — REF. NO. EPA-660/3–75–018
Guide for the Evaluation of Atmospheric Analyzers – REF. NO. EPA-650/4–74–014
Guide to Models in Governmental Planning and Operations – REF. NO. EPA-600/5–74–008
Guidelines for the Disposal of Small Quantities of Unused Pesticide — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–057
Guidelines for Burner Adjustments of Commercial Oil-FiredBoilers – REF. NO. EPA-600/2–76–088
Guidelines for Demonstration Project Quality Assurance Programs – REF. NO. EPA-600/2–76–081
Guidelines for Determining Performance Characteristics of Altimated Methods for Measuring Nitrogen Dioxide and Hydrocarbons, Corrected for Methane in Ambient Air – REF. NO. EPA-650/4–74–018
Guidelines for Development of a Quality Assurance Program: Volume XII – Determination of Phosphorus in Gasoline – REF. NO. EPA-650/4–74–0051
Guidelines for Development of a Quality Assurance Program: Volume XIII – Test for Lead in Gasoline by Atomic Absorption Spectrometry – REF. NO. EPA-650/4–74–005m
Guidelines for Development of a Quality Assurance Program: Volume XIV – Screening Determination of Lead in Gasoline – REF. NO. EPA-650/4–74–005n
Guidelines for Development of a Quality Assurance Program: Volume I-Determination of Stack Gas Velocity and Volumetric Flow Rate (Type-S Pitot Tube) – REF. NO. EPA-650/4–74–005a
Guidelines for Development of a Quality Assurance Program: Volume II – Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight – REF. NO. EPA-650/4–74–005b
Guidelines for Development of a Quality Assurance Program: Volume III – Determination of Moisture in Stack Gases – REF. NO. EPA-650/4–74–005c
Guidelines for Development of a Quality Assurance Program: Volume IV – Determination of Particulate Emissions from Stationary Sources – REF. NO. EPA-650/4–74–005d
Guidelines for Development of a Quality Assurance Program: Volume VIII – Determination of CO Emissions from Stationary Sources by NDIR Spectrometry – REF. NO. EPA-650/4–74–005h
Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Quality Assurance Guidelines – REF. NO. EPA-650/4–75–024a
Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Test Procedures – REF. NO. EPA-650/4–75–024b
Guidelines for Residential Oil-Burner Adjustments — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–069a
Handbook for Evaluating Water Bacteriology — Abstracted 600/9–75–001c — REF. NO. EPA-670/9–75–006
Handbook for ORD Report Specifications – REF. NO. EPA-600/9–76–001
Handbook of Radiochemical Analytical Methods — Abstracted 600/9–75–001a — REF. NO. EPA-680/4–75–001
Hatfield Township, Pennsylvania, Advanced Waste Treatment Plant — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–030
Hazardous Emission Characterization of Utility Boilers — Abstracted 600/9–75–001d — REF. NO. EPA-650/2–75–066
Haze Formation: It's Nature and Origin – 1973 – REF. NO. EPA-650/3–74–002
Haze Formation: Its Nature and Origin – 1975 – REF. NO. EPA-650/3–75–010
Health and Annoyance Impact of Odor Pollution – REF. NO. EPA-650/1–75–001
Health Consequences of Sulfur Oxides: A Report from CHESS,1970–1971 – REF. NO. EPA-650/1–74–004
Heavy Metal Accumulation in Soil and Vegetation From Smelter Emissions – REF. NO. EPA-660/3–74–012
Helical Bend Combined Sewer Overflow Regulator – REF. NO. EPA-600/2–75–062
Herbicide Runoff from Four Coastal Plain Soil Types – REF. NO. EPA-660/2–74–017
Herbicide Toxicity in Mangroves – REF. NO. EPA-600/3–76–004
High-Temperature Vortex Incinerator — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–025
High-Velocity, High-Efficiency Aerosol Filtration – REF. NO. EPA-600/2–76–020
Highway Air Pollution Measurement Program Using Sulfur Hexafluoride Tracer Gas – REF. NO. EPA-650/4–74–043
Hospital Solid Waste Disposal in Community Facilities – REF. NO. EPA-670/2–73–048
Hospital Solid Waste: An Annotated Bibliography – REF. NO. EPA-670/5–74–001

TITLE INDEX

Hydrocarbon Emissions Reduction From Ethylene Dichloride Processes – REF. NO. EPA-600/2–76–053
Hydrocarbon Measurement Discrepancies Among Various Analyzers Using Flame-Ionization Detectors — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–010
Hydrogen Peroxide Cures Filamentous Growth in Activated Sludge – REF. NO. EPA-670/2–73–033
Hyperfiltration for Renovation of Textile Finishing Plant Wastewater – REF. NO. EPA-600/2–76–060
Hypochlorination of Pollution Stormwater Pumpage at New Orleans – REF. NO. EPA-670/2–73–067
Hypolimnetic Flow Regimes in Lakes and Impoundments – REF. NO. EPA-660/2–74–053
Hypolimnion Aeration With Commercial Oxygen – Volume I – Dynamics of Bubble Plume – REF. NO. EPA-660/2–73–025a
Hypolimnion Aeration With Commercial Oxygen – Volume II – Bubble Plume Gas Transfer – REF. NO. EPA-660/2–73–025b
Identification and Assessment of Asbestos Emissions from Incidental Sources of Asbestos – REF. NO. EPA-650/2–74–087
Identification and Characterization of the Use of Mixed Conventional and Waste Fuels — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–017
Identification of Regenerable Metal Oxide SO_2 Sorbents for Fluidized Coal Combustion — Abstracted 600/9–75–001d — REF. NO. EPA-650/2–75–065
Impact of the Use of Microorganisms on the Aquatic Environment — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–001
Impact of Clean Fuels Combustion on Primary Particulate Emissions From Stationary Sources – REF. NO. EPA-600/2–76–052
Impact of Hydrologic Modifications on Water Quality — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–007
Implementation of a Computer Based Information System for Mass Spectral Identification – REF. NO. EPA-660/2–74–048
Improved Air Pollution Control for a Kraft Recovery Boiler: Recovery Boiler No. 4 – REF. NO. EPA-650/2–74–071b
Improved Air Pollution Control for Kraft Recovery Boiler: Modified Recovery Boiler No. 3 – REF. NO. EPA-650/2–74–071a
Improved Liquid-Solids Separation By An Aluminum Compound in Activated Sludge Treatment — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–039
Improvement of Instrumentation and Methodology for Collection and Analysis of Mercury – REF. NO. EPA-650/2–75–028
Improvement of Treatment of Food Industry Waste – REF. NO. EPA-660/2–74–035
Improving the Statistical Reliability of Stream Heat Assimilation Prediction — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–037
In-Stack Transmissometer Evaluation and Application to Particulate Opacity Measurement — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–008
In-Stack Transmissometer Measurement of Particulate Opacity and Mass Concentration — Abstracted 600/9–75–001b — REF. NO. EPA-650/2–74–120
In-Vitro Screening Methods Evaluating the Neurotoxic Potential of Pesticides – REF. NO. EPA-600/1–76–005
Incineration of Bulky Refuse Without Prior Shredding – REF. NO. EPA-670/2–73–023
Incineration of Plastics Found in Municipal Wastes – REF. NO. EPA-670/2–73–087
Incinerator Overfire Mixing Demonstration — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–016
Indexed Bibliography of Office of Research and Development Reports – Updated to January 1975 — Abstracted 600/9–75–001a — REF. NO. EPA-600/9–74–002
Indexed Bibliography of Office of Research and Development Reports – REF. NO. EPA-600/9–74–001
Indigestor Black Liquor Oxidation for Odor Control in Kraft Pulping – REF. NO. EPA-650/2–74–005
Industrial Chemicals Solid Waste Generation — The Significance of Process Resource Recovery, and Improved Disposal – REF. NO. EPA-670/2–74–078
Industrial Solid Waste Classification Systems — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–024
Industrial Water Softener Waste Brine Reclamation – REF. NO. EPA-660/2–74–007
Influence of Aerodynamic Phenomena on Formation in Combustion – Volume I. Experimental Results — Abstracted 600/9–75–001d — REF. NO. EPA-650/2–75–061a
Influence of Fiber Characteristics on Particulate Filtration — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–002
Influence of Fly Ash Compositional Factors on Electrical Volume Resistivity – REF. NO. EPA-650/2–74–074
Influence of Land Use on Stream Nutrient Levels – REF. NO. EPA-600/3–76–014
Influences of Wastewater Management on Land Use: Tahoe Basin 1950–1972 – REF. NO. EPA-600/5–74–019
Information Resource: Final Report Water Pollution Control in Water Utilities – REF. NO. EPA-660/2–73–020
Infrared Dry Caustic vs. Wet Caustic Peeling of White Potatoes – REF. NO. EPA-660/2–74–088
Infrared Fourier Transform Spectrometry of Gas Chromatography Effluents – REF. NO. EPA-660/2–73–034
Infrared Gas Filter Correlation Instrument for In-Situ Measurement of Gaseous Pollutants – REF. NO. EPA-650/2–74–094
Infrared Sensor for the Remote Monitoring of SO_2 – REF. NO. EPA-650/2–75–041
Infrared Spectral Sensor for Refuse Sorting – REF. NO. EPA-670/2–74–031
Inputs of Phosphorus from Precipitation to Lake Michigan — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–005
Instream Aeration to Control Dissolved Sulfide in Sanitary Sewers – REF. NO. EPA-670/2–73–024
Instrument for Simultaneous Monitoring NO_x and SO_2 in Stationary Sources – REF. NO. EPA-650/2–73–027
Instrument to Monitor CH_4, CO and CO_2 in Auto Exhaust – REF. NO. EPA-650/2–73–030
Instrumental Analyses for Wet Scrubbing Processes – REF. NO. EPA-650/2–74-064
Instrumentation and Methodology for the Assay of Polynuclear Aromatic Hydrocarbons – REF. NO. EPA-650/2–74–069
Integrated Multi-media Pollution Model – REF. NO. EPA-600/5–74–020
Interactions of Stack Gas Sulfur and Nitrogen Oxides on Dry Berkau – REF. NO. EPA-650/2–73–029
Interactions of Various Air Pollutants on Causation of Pulmonary Disease – REF. NO. EPA-650/1–73–002
Interfacing a 24-Point Analog Recorder to a Computer Controlled Telemetry Line — Abstracted 600/9–75–001a — REF. NO. EPA-670/4–75–002
Interferometric Instrumentation For Particle Size Analysis – REF. NO. EPA-650/2–73–034
Interim Radiochemical Methodology for Drinking Water — Abstracted 600/9–75–001c — REF. NO. EPA-600/4–75–008
Interim Report of Task Force on Phosphate Removal Sludges — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–013

TITLE INDEX

Interim Report on the Impact of Public Law 92–500 on Municipal Pollution Control Technology – REF. NO. EPA-600/2-76-018
Intermedia Aspects of Air and Water Pollution Control – REF. NO. EPA-600/5-73-003
Interpretative Compilation of EPA Studies Related to Coal Quality and Cleanability – REF. NO. EPA-650/2-74-030
Invariant Modeling of Turbulence and Diffusion in the Planetary Boundary Layer – REF. NO. EPA-650/4-74-035
Inverted Siphons for Oil Trapping – REF. NO. EPA-600/2-76-028
Investigation of the Effects of Carbon Monoxide on Humans in the Driving Task – REF. NO. EPA-650/1-73-003
Investigation of the Orion Research Cyanide Monitor --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/4-75-005
Investigation of Corrosion Deposition Phenomena on Gas Turbine Blades – REF. NO. EPA-670/2-73-006
Investigation of Extractive Sampling Interface Parameters – REF. NO. EPA-650/2-74-089
Investigation of Gas Phase Ozonolysis Reactions – REF. NO. EPA-600/3-76-024
Investigation of Particulate Emission from Oil-Fired Residential Heating Units – REF. NO. EPA-650/2-74-026
Investigation of Particulate Matter Monitoring Using Contact Electrification – REF. NO. EPA-650/2-75-043
Investigation of Remote Sensing Techniques for Agricultural Feedlot Pollution Detection – REF. NO. EPA-670/4-73-002
Investigation of Surface Combustion Concepts for NOx Control in Utility Boilers and Stationary Gas Turbines – REF. NO. EPA-650/2-73-014
Investigation of Surface Films – Chesapeake Bay Entrance – REF. NO. EPA-670/2-73-099
Ion Exchange Process for Recovery of Chromate from Pigment Manufacturing – REF. NO. EPA-670/2-74-044
Ion-Selective Membranes Electrodes for Water Pollution Water Monitoring – REF. NO. EPA-660/2-74-079
Iron Foundry Cupola Recuperative Emission Control Demonstration – REF. NO. EPA-600/2-76-004
Iron Foundry Cupola Recuperative Emission Control Demonstration — Design Manual – REF. NO. EPA-650/2-74-004
Isolating Organic Water Pollutants: XAD Resins, Urethane Foams, Solvent Extraction --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/4-75-003
Isolation of Hayfever Antigens from Short Ragweed Pollen – REF. NO. EPA-650/2-74-044
Isotopic Composition of Carbon Monoxide in St. Louis, Missouri Area – REF. NO. EPA-600/3-76-010
Johns-Manville CHEAF Evaluation – REF. NO. EPA-650/2-75-058a
Joint Construction Sediment Control Project – REF. NO. EPA-660/2-73-035
Kinetic Mechanisms of Methane/Air Combustion with Pollutant Formation – REF. NO. EPA-650/2-74-045
Kinetic Mechanisms Governing the Fate of Chemically Bound Sulfur and Nitrogen in Combustion – REF. NO. EPA-650/2-74-017
Kinetic Model for Orthophosphate Reactions in Mineral Soils --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-022
Laboratory and Field Evaluations of EPA Methods 2, 6 and 7 – REF. NO. EPA-650/4-74-039
Laboratory and Numerical Simulation of Plume Dispersion in Stably Stratified Flow Over Complex Terrain – REF. NO. EPA-650/4-74-044
Laboratory Analyses of Atmospheric Hydrocarbon – California South Coast Air Basin (Los Angeles Air Quality Control Region) August – November 1973 – REF. NO. EPA-650/4-74-052
Laboratory Evaluation of a Method for Enhancing the Kinetics of Activated Sludge Treatment Plants --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-061
Laboratory Ozonation of Municipal Wastewater – REF. NO. EPA-670/2-73-075
Laboratory Study of Continous Electro-oxidation of Dilute Cuanide Waste – REF. NO. EPA-670/2-74-059
Laboratory Study of Self-Sealing Limestone Plugs for Mine Openings – REF. NO. EPA-670/2-73-081
Lake Classification --- A Trophic Characterization of Wisconsin Lakes --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-033
Land Application of Sludge Effluent and Sludges: Selected Abstracts – REF. NO. EPA-660/2-74-042
Land Use and the Environment: An Anthology of Readings --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/5-75-009
Land Use Decision Methodology for Environmental Control --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/5-75-008
Land Use Forms and the Environment – An Executive Summary --- Abstracted 600/9-75-001a --- REF. NO. EPA-600/5-75-003
Lead: Environmental Sources and Red Cell Toxicity in Urban Children – REF. NO. EPA-650/1-75-003
Lidar Studies of Stack Plumes in Rural and Urban Environments – REF. NO. EPA-650/4-73-002
Lime Disinfection of Sewage Bacteria at Low Temperature – REF. NO. EPA-660/2-73-017
Lime Stabilized Sludge: Its Stability and Effect on Agricultural Land --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-012
Lime Use in Wastewater Treatment: Design and Cost Data --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-038
Lime/Limestone Scrubbing for SO_2 and Particulate Removal in a Marble Bed Scrubber – REF. NO. EPA-650/2-75-052
Lime/Limestone Scrubbing in a Pilot Dustraxtor – Key West – REF. NO. EPA-650/2-74-077
Limestone and Limestone-Lime Neutralization of Acid Mine Drainage – REF. NO. EPA-670/2-74-051
Limited SO_2 and NOx Measurements in St. Louis, 1974: Volume I – Plume Tracking by Correlation Spectroscopy – REF. NO. EPA-650/2-75-005a
Limited SO_2 and NOx Measurements in St. Louis, 1974: Volume II, Longline Ambient SO_2 Monitor and Variability of SO_2 and NOx – REF. NO. EPA-650/2-75-005b
Limnological Investigation of the Muskegon County, Michigan, Wastewater Storage Lagoons—Phase One --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/3-75-009
Limnological Studies of Flat-head, Montana: A Status Report – REF. NO. EPA-660/3-74-023
Liquid Aerobic Composting of Cattle Wastes and Evaluation of Byproducts – REF. NO. EPA-660/2-74-034
Literature Review and Bibliography of Mammalian Toxicology of Select Munitions --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/9-75-008
Literature Search and Analysis of Information Regarding Sources, Uses, Production, Consumption, Reported Medical Cases and Toxicology of Platinum and Palladium – REF. NO. EPA-650/1-74-008
Literature Survey of Instrumental Measurements of Biochemical Oxygen Demand for Control Application, 1960–1963 – REF. NO. EPA-670/4-74-001
Livestock and the Environment – A Bibliography with Abstracts – REF. NO. EPA-660/2-74-024
Livestock and the Environment---A Bibliography with Abstracts, Volume II --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/2-75-003

TITLE INDEX

Lone Star Steel Steam-Hydro Air Cleaning System Evaluation – REF. NO. EPA-650/2–74–028
Losses of Fertilizers and Pesticides from Claypan Soils – REF. NO. EPA-660/2–74–068
Low Cost Compact X-Ray Flourescent Analyzer for On-Site Measurement of Trace Element in Airborne Particulate Emission – REF. NO. EPA-600/4–75–002
Low Winter Dissolved Oxygen in Some Alaskan Rivers – REF. NO. EPA-660/3–74–008
Magnesia Scrubbing Process as Applied to an Oil-Fired Power Plant --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–057
Management Practices Affecting Quality and Quantity of Irrigation Return Flow --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/2–75–005
Managing the Environment – REF. NO. EPA-600/5–73–010
Manual for Deicer Chemical Application Practices – REF. NO. EPA-670/2–74–045
Manual for Deicing Chemical Storage and Handling – REF. NO. EPA-670/2–74–033
Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples – REF. NO. EPA-600/1–76–017
Manual Methods for Sampling and Analysis of Particulate Emissions From Municipal Incinerators – REF. NO. EPA-650/2–73–023
Marine Algal Assay Procedure Bottle Test --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/3–75–008
Marketing H_2SO_4 from SO_2 Abatement Sources— The TVA Hypothesis – REF. NO. EPA-650/2–73–051
Mathematical Analysis of the Kinetics of Viral Inactivation – REF. NO. EPA-670/2–74–067
Mathematical Model for Aerobic Digestion – REF. NO. EPA-670/2–73–045
Mathematical Model for Barged Ocean Disposal of Wastes – REF. NO. EPA-660/2–73–029
Mathematical Model for Post Aeration – REF. NO. EPA-670/2–73–044
Mathematical Model of Electrostatic Precipitation --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–037
Mathematical Modeling of Phytoplankton in Lake Ontario --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/3–75–005
Mathematical Modeling of Simulated Photochemical Smog – REF. NO. EPA-650/4–75–026
Mathematical Simulation of an Adsorber for Pollutant Removal --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–110
Mathematical Simulation of Atmospheric Photochemical Reactions: Model Development, Validation, and Application – REF. NO. EPA-650/4–74–011
Mathematical Simulation of Smog Chamber Photo-Chemical Experiments – REF. NO. EPA-650/4–74–040
Measurement and Characterization of Particles in Wet Scrubbing Process for SO_x Control – REF. NO. EPA-650/2–73–024
Measurement of the Opacity and Mass Concentration of Particulate Emissions by Transmissometry – REF. NO. EPA-650/2–74–128
Measurement of Atmospheric Sulfates: Evaluation of the Methylthymol Blue Method – REF. NO. EPA-600/4–76–015
Measurement of Atmospheric Sulfates: Literature Search and Methods Selection – REF. NO. EPA-600/4–76–008
Measurement of Entrained Liquid Levels in Effluent Gases from Scrubber Demisters – REF. NO. EPA-650/2–74–050
Measurement of Residual Chlorine Levels in Cooling Water — Amperometric Method – REF. NO. EPA-660/2–73–039
Measurement of Strontium-89 and Strontium-90 in Environmental Waters: A Tentative Reference Method – REF. NO. EPA-600/4–76–011
Measurement of Sulfur Dioxide, Particulate, and Trace Elements in Copper Smelter Converter and Roaster/Reverberatory Gas Streams – REF. NO. EPA-650/2–74–111
Measurement of Total Radium and Radium-226 in Environmental Waters: A Tentative Reference Method – REF. NO. EPA-600/4–76–012
Measurements of Active Biomass Concentrations in Biological Waste Treatment Processes --- Abstracted 600/9–75–001c --- REF. NO. EPA-600/2–75–029
Measures of Effectiveness for Refuse Storage, Collection, and Transportation Practices – REF. NO. EPA-670/2–74–082
Measuring External Effects of Solid Waste Management --- Abstracted 600/9–75–001b --- REF. NO. EPA-600/5–75–010
Meeting Report: Advanced Fossil Fuels Sector Group, Research Triangle Park, 13 November 1975 – REF. NO. EPA-600/9–76–006
Mercury in the Aquatic Systems: Metholation, OxidationReduction; in Bio Accumulation – REF. NO. EPA-660/3–74–021
Mercury in the Environment – REF. NO. EPA-660/2–73–008
Mercury Recovery from Contaminated Waste Waters and Sludges – REF. NO. EPA-660/2–74–086
Mesoscale Windfield Analysis of Los Angeles Basin – REF. NO. EPA-650/4–73–001
Metabolism of Carbamate Insecticides – REF. NO. EPA-650/1–74–002
Metabolism of Mercury Compounds in Microorganisms --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/3–75–007
Metallic Recovery From Waste Waters Utilizing Cementation – REF. NO. EPA-670/2–74–008
Metallurgical Upgrading of Automotive Scrap Steel – REF. NO. EPA-670/2–73–091
Meteorological Episodes of Slowest Dilution in Contiguous United States – REF. NO. EPA-650/4–74–002
Method for Evaluating SO_2 Abatement Strategies --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–045
Method for Obtaining Replicate Particulate Samples from Stationary Sources – REF. NO. EPA-650/4–75–025
Methodology for Assignment of a Hydrocarbon Photochemical Reactivity Index for Emissions From Mobile Sources – REF. NO. EPA-650/2–75–025
Methodology for Determining the Effects of Fuels and Additives on Atmospheric Visibility – REF. NO. EPA-650/2–75–068
Methodology for Determining Fuel Effects on Diesel Particulate Emissions – REF. NO. EPA-650/2–75–056
Methodology for Inventorying Hydrocarbons – REF. NO. EPA-600/4–76–013
Methodology for Treating Large Localized Emissions of Reactive Pollutants – REF. NO. EPA-650/4–74–006
Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/3–75–009
Methods for Improvement of Trickling Filter Plant Performance, Part I – Mechanical and Biological Optima – REF. NO. EPA-670/2–73–047a
Methods for Rapid and Accurate Measurement of Nitrate and Sulfate in Atmospheric Particulates – REF. NO. EPA-650/2–73–050
Methods to Treat, Control and Monitor Spilled Hazardous Materials --- Abstracted 600/9–75–001c --- REF. NO. EPA-670/2–75–042
Methyl Mercury and the Metabolic Responses of Brain Tissue – REF. NO. EPA-600/1–76–013
Methylation of Mercury in a Terrestrial Environment --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/3–75–014

TITLE INDEX

Microbial Degradation and Accumulation of Pesticides in Aquatic Systems – REF. NO. EPA-660/3-75-007
Microbial-Malathion Interaction in Artificial Salt-Marsh Ecosystems: Effects and Degradation --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-035
Microbiological Production of Geosmin – REF. NO. EPA-670/2-74-094
Microbiology of Sewage Sludge Disposal in Soil – REF. NO. EPA-670/2-74-074
Microstraining and Disinfection of Combined Sewer Overflows – Phase III – REF. NO. EPA-670/2-74-049
Mine Drainage Pollution Control Demonstration Grant Procedures and Requirement --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-003
Mine Spoil Potentials for Soil and Water Quality – REF. NO. EPA-670/2-74-070
Minimum Standards For Quality of Life --- Abstracted 600/9-75-001c --- REF. NO. EPA-600/5-75-012
Mixed Oxides for Fuel Cell Electrodes – REF. NO. EPA-600/2-76-007
Mobile Fabric Filter System Design and Field Test Results – REF. NO. EPA-650/2-75-059
Mobile Lidar Study of the Los Angeles Mixing Layer – REF. NO. EPA-600/4-76-009
Modal Cities – REF. NO. EPA-600/5-74-027
Mode of Action of Cyclodiene Insecticides – REF. NO. EPA-600/1-76-008
Model for Optimal Design and Operation of Solid Waste Transfer Stations – REF. NO. EPA-670/5-74-009
Model Verification – Aircraft Emissions Impact on Air Quality – REF. NO. EPA-650/4-74-049
Modeling of the Effects of Pollutants and Dispersion in Urban Atmospheres – REF. NO. EPA-600/4-76-002
Modeling Dynamics of Biological and Chemical Components of Aquatic Ecosystems --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-012
Modeling Pesticides and Nutrients on Agricultural Lands – REF. NO. EPA-600/2-76-043
Modifications to the Executive Computer Program for Steady-State Simulation of Wastewater Treatment Facilities – REF. NO. EPA-670/2-74-066
Modular Wastewater Treatment System Demonstration For the Textile Maintenance Industry – REF. NO. EPA-660/2-73-037
Molecular Modulation Spectrometry for Observation of Free Radicals – REF. NO. EPA-650/4-74-004
Molecular Sieve Control Process in Sulfuric Acid Plants --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-066
Molecular Sieve Mercury Control Process in Chlor-Alkali Plants – REF. NO. EPA-600/2-76-014
Molecular Sieve NO_x Control Process in Nitric Acid Plants – REF. NO. EPA-600/2-76-015
Molecular Sieve Tests for Control of NO Emissions From A Nitric Acid Plant; Volume II—Appendices – REF. NO. EPA-600/2-76-048b
Molecular Sieve Tests for Control of NO_x Emissions from a Nitric Acid Plant; Volume I – REF. NO. EPA-600/2-76-048a
Molecular Sieve Tests for Control of Sulfuric Acid Plant Emissions – REF. NO. EPA-600/2-76-047
Molybdenum – A Toxicological Appraisal – REF. NO. EPA-600/1-75-004
Monitoring Disposal-Well Systems --- Abstracted 600/9-75-001c --- REF. NO. EPA-680/4-75-008
Multi-Purpose Combined Sewer Overflow Treatment Facility, Mount Clemens, Michigan --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-010
Multielement Analyses of Environmental Samples by Spark Source Mass Spectrometry – REF. NO. EPA-660/2-74-001
Municipal Waste Disposal by Shipborne Incineration and Sea-Disposal of Residues – REF. NO. EPA-670/2-73-017
Municipal Water Pollution Control Abstracts for 1974 --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/2-75-005
National Environmental Specimen Bank Survey – REF. NO. EPA-600/1-76-006
Negatively Buoyant Jets in a Cross Flow – REF. NO. EPA-660/2-73-012
New Membranes for Reverse Osmosis Treatment of Metal Finishing Effluents – REF. NO. EPA-660/2-73-033
New Microbial Indicators of Wastewater Chlorination Efficiency – REF. NO. EPA-670/2-73-082
News of Environmental Research in Cincinnati – May-December, 1973 – REF. NO. EPA-670/9-74-002
News of Environmental Research in Cincinnati, January – December 1974 --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/9-75-003
Nitrate and Nitrite Volatilization By Microorganisms in Laboratory Experiments – REF. NO. EPA-660/2-73-002
Nitrite-Accelerated Photochemical Degradation of Cellulose as a Pretreatment for Microbiological Conversion to Protein – REF. NO. EPA-670/2-73-052
Nitrogen and Phosphorus Losses from Agronomy Plots in North Alabama – REF. NO. EPA-660/2-74-033
Nitrogen in the Subsurface Environment --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-030
Nitrogen Removal By Ammonia Stripping – REF. NO. EPA-670/2-73-040
Nitrogen Sources and Cycling in Natural Waters – REF. NO. EPA-660/3-73-002
Nitrogenous Compounds in the Environment – REF. NO. EPA-SAB-73-001
Nomographs for Thermal Pollution Control Systems – REF. NO. EPA-660/2-73-004
Nonpoint-Source Pollution in Surface Waters: Associated Problems and Investigative Techniques --- Abstracted 600/9-75-001c --- REF. NO. EPA-680/4-75-004
Normal Carboxyhemoglobin Levels of Blood Donors in the United States – REF. NO. EPA-650/1-73-004
North Fork Alluvial Decontamination Project, Hubbard Creek Reservoir Watershed – REF. NO. EPA-660/2-74-019
Numerical Models of Lake Currents – REF. NO. EPA-600/3-76-020
Nutrient Inactivation As A Lake Restoration Procedure — I. Laboratory Investigations – REF. NO. EPA-660/3-74-032
Nutritional Ecology of Nuisance Aquatic Plants --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-027
NATIONAL EUTROPHICATION SURVEY—Data Acquisitions and Laboratory Analysis System for Lake Samples --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-015
NERC-Cincinnati Annual Report, 1974 --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/9-75-002
NO_x Abatement for Stationary Sources in Japan – REF. NO. EPA-600/2-76-013b
NO_x Combustion Control Methods and Costs for Stationary Sources—Summary Study --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-046
NO_2 Actinometer for Field Use – REF. NO. EPA-650/4-74-036
NO_2 Measuring System – REF. NO. EPA-650/2-74-059

TITLE INDEX

NTA and Mercury in Artificial Stream Systems – REF. NO. EPA-660/3-73-025
Occupational and Environmental Pesticide Exposure Study in South Florida – REF. NO. EPA-650/1-75-002
Occurrence and Distribution of Potentially Volatile Trace Elements in Coal – REF. NO. EPA-650/2-74-054
Occurrence of Organohalides in Chlorinated Drinking Waters – REF. NO. EPA-670/4-74-008
Odor Control by Scrubbing in the Rendering Industry – REF. NO. EPA-600/2-76-009
Odor Removal from Air by Adsorption on Charcoal – REF. NO. EPA-650/2-74-084
Odors from Confined Livestock Production – A State of the Art – REF. NO. EPA-660/2-74-023
Odors Emitted From Raw and Digested Sewage Sludge – REF. NO. EPA-670/2-73-098
Off-the-Shelf Analyzers for Measuring Adenosine Triphosphate (ATP) in Activated Sludge – REF. NO. EPA-670/2-74-034
Oil Recovery System Using Sorbent Material – REF. NO. EPA-670/2-73-068
Oil Recovery System Utilizing Polyurethane Foam—A Feasibility Study – REF. NO. EPA-670/2-73-084
Oil Shale Air Pollution Control — Abstracted 600/9-75-001b — REF. NO. EPA-600/2-75-009
Oil Spill and Oil Pollution Reports — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-003
Oil Spill and Oil Pollution Reports – November 1974 – February 1975 — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-044
Oil Spill and Oil Pollution Reports, February 1975 – April 1975 — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-059
On-Line Colorimetric Analyzers for Monitoring Nitrate-Nitrite, Ammonia, Orthophosphorus and Total Hydrolyzable Phosphorus in Wastewater-Treatment Process Streams – REF. NO. EPA-670/2-74-046
On-Shore Treatment Systems for Sewerage from Watercraft Retention Systems — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-007
Optical Measurements of Smoke Particle Size Generated by Electric Arcs – REF. NO. EPA-650/2-74-034
Optimal Configuration of a Regional Solid Waste Management System – REF. NO. EPA-670/5-74-007
Optimal Method for Measuring the Mass Concentration of Particulate Emissions – REF. NO. EPA-600/2-76-062
Optimization and Design of an Oil/Activated Sludge Concentration Process – REF. NO. EPA-670/2-74-004
Optimization and Evaluation of a Microelectrolytic Conductivity Detector for the Gas Chromatographic Determination of Pesticide Residues – REF. NO. EPA-600/1-76-012
Optimization of Air Pollution Measurement Locations – REF. NO. EPA-650/4-75-005
Optimization Models for Regional Public Systems – REF. NO. EPA-670/5-74-008
Optimizing a Petrochemical Waste Bio-Oxidation System Through Automation — Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-021
Organic Compounds in Pulp Mill Lagoon Discharge — Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-028
Organic Compounds Entering Groundwater from a Landfill – REF. NO. EPA-660/2-74-077
Organic Nutrient Factors Effecting Algal Growths – REF. NO. EPA-660/3-73-003
Outdoor Smog Chamber Studies: Effect of Hydrocarbon Reduction on Nitrogen Dioxide – REF. NO. EPA-650/3-75-011
Outpatient Medical Costs Related to Air Pollution in the Portland, Oregon Area – REF. NO. EPA-600/5-74-017
Overview of EPA/IERL-RTP Scrubber Programs — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-054
Oxidation of Halocarbons – REF. NO. EPA-650/3-75-008
Oxidation of Organic Matter in Sediments – REF. NO. EPA-660/3-73-005
Oxygenation of Aqueous Bodies Using Liquid Oxygen-Loxination – REF. NO. EPA-670/2-74-048
OR&D ADP Workshop Proceedings No. 1 – REF. NO. EPA-600/9-75-002
OR&D Publications Summary – December 1975 – REF. NO. EPA-600/9-75-001d
OR&D Publications Summary – June 1975 – REF. NO. EPA-600/9-75-001b
OR&D Publications Summary – March 1975 – REF. NO. EPA-600/9-75-001a
OR&D Publications Summary – September 1975 – REF. NO. EPA-600/9-75-001c
Particle Detector By Mechanical Impact Sensing – REF. NO. EPA-600/2-75-025
Particulate Collection Efficiency Measurements on a Wet Electrostatic Precipitator — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-033
Particulate Collection Efficiency Measurements on Three Electrostatic Precipitators — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-056
Particulate Collection Study, EPA/TVA Full-Scale Dry Limestone Injection Tests – REF. NO. EPA-650/2-74-053
Particulate Control Mobile Test Units: First Year's Operation – REF. NO. EPA-600/2-76-042
Particulate Emissions from Alfalfa Dehydrating Plants — Control Costs and Effectiveness – REF. NO. EPA-650/2-74-007
Particulate Emissions from Prototype Catalyst Cars – REF. NO. EPA-650/2-75-054
Particulate Removal From Gas Streams at High Temperature – High Pressure – REF. NO. EPA-600/2-75-020
Particulate Sizing Techniques for Control Device Evaluation – REF. NO. EPA-650/2-74-102
Particulate Sizing Techniques for Control Device Evaluation – REF. NO. EPA-650/2-74-102a
Paunch Manure as a Feed Supplement in Channel Catfish Farming – REF. NO. EPA-660/2-74-046
Pentapure Impinger Evaluation — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-024a
Performance of the OSCO Model 1391 Water Wastewater Sampler — Abstracted 600/9-75-001a — REF. NO. EPA-670/4-75-001
Performance of the Union Carbide Dissolved Oxygen Sensor – REF. NO. EPA-670/4-73-018
Performance Controls for Sensitive Lands: A Practical Guide For Local Administrators — Abstracted 600/9-75-001b — REF. NO. EPA-600/5-75-005
Performance Specifications for Stationary-Source Monitoring Systems for Gases and Visible Emissions – REF. NO. EPA-650/2-74-013
Pesticide Movement from Crop Lands into Lake Erie – REF. NO. EPA-660/2-74-032
Pesticide, Transport and Runoff Model for Agricultural Land – REF. NO. EPA-660/2-74-013
Pesticides in the Illinois Waters of Lake Michigan – REF. NO. EPA-660/3-74-002
Pesticides Epidemiological Field Studies – REF. NO. EPA-650/1-74-009
Petrograhpic Characteristics and Physical Properties of Marls, Chalks, Shells and Their Calcines Related to Desulfurization of Flue Gases – REF. NO. EPA-650/2-73-044

TITLE INDEX

Petroleum Weathering: Some Pathways, Fate and Disposition on Marine Waters – REF. NO. EPA-660/3–73–013

Pharmacokinetics of Toxic Elements in Rainbow Trout – REF. NO. EPA-660/3–74–027

Phosphate Removal in an Activated Sludge Facility – REF. NO. EPA-670/2–74–061

Phosphorus Uptake and Release by Lake Ontario Sediments — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–006

Photochemical Oxidants in the Ambient Air of the United States – REF. NO. EPA-600/3–76–017

Photochemical Oxidation of Kraft Air Pollutants – REF. NO. EPA-650/3–75–005

Physical – Chemical Treatment of Raw Material Wastewater – REF. NO. EPA-670/2–73–070

Physical and Setling Characteristics of Particulates in Storm and Sanitary Wastewaters — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–011

Physical-Chemical Treatment of Municipal Wastes by Recycled Magnesium Carbonate – REF. NO. EPA-660/2–74–055

Physical, Chemical and Microbiological Methods of Solid Waste Testing – REF. NO. EPA-670/2–73–001

Physical, Chemical and Microbiological Methods of Solid Waste Testing: Four Additional Procedures – REF. NO. EPA-670/2–74–007

Phytoplankton Composition and Abundance in Lake Ontario During IFYGL — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–004

Pilot – Demonstration Project for Industrial Reuse of Renovated Municipal Wastewater – REF. NO. EPA-670/2–73–064

Pilot Plant Optimization of Phosphoric Acid Recovery Process — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–015

Pilot Scale Treatment of Wine Stillage — Abstracted 600/9–75–001a — REF. NO. EPA-660/2–75–002

Pilot-Plant Study of an Ammonia Absorption Ammonium Bisulfate Regeneration Process, Topical Report Phases I and II – REF. NO. EPA-650/2–74–049a

Planned Maintenance Management System for Municipal Wastewater Treatment Plants – REF. NO. EPA-600/2–73–004

Plant Scale Studies of the Magnesium Carbonate Water Treatment Process – REF. NO. EPA-660/2–75–006

Plume Temperature Measurements of Shallow Submerged Model Discharges With Current – REF. NO. EPA-660/2–73–001

Pneumo-Slurry Pipeline Collection and Removal of Municipal Solid Waste – REF. NO. EPA-670/2–73–072

Pollutant Analysis Cost Survey – REF. NO. EPA-650/2–74–125

Polluted Groundwater: A Review of the Significant Literature – REF. NO. EPA-600/4–74–001

Polluted Groundwater: Estimating the Effects of Man's Activities (Formerly 600/4–74–002) – REF. NO. EPA-680/4–74–002

Polluted Groundwater: Some Causes, Effects, Controls and Monitoring – REF. NO. EPA-600/4–73–001b

Pollution Abatement From Cattle Feedlots in Northeastern Colorado and Nebraska — Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–015

Pollution Aspects of Catfish Production—Review and Projections – REF. NO. EPA-660/2–74–064

Pollution Control Technology for Pesticide Formulators and Packagers — Abstracted 600/9–75–001a — REF. NO. EPA-660/2–74–094

Pollution Control Technology Assessment – Proceedings of an Environmental Resources Conference, May 1–3, 1974 — Abstracted 600/9–75–001a — REF. NO. EPA-670/9–74–006

Pollution Effects on Adult Steelhead Migration in the Snake River – REF. NO. EPA-660/3–73–017

Pollution Problems and Research Needs for an Oil Shale Industry – REF. NO. EPA-660/2–74–067

Portable Device for Measuring Wastewater Flow in Sewers – REF. NO. EPA-600/2–73–002

Potentially Hazardous Emissions From The Extraction and Processing of Coal and Oil — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–038

Poultry Manure Disposal by Plow-Furrow-Cover – REF. NO. EPA-670/2–73–085

Poultry Processing Wastewater Treatment and Reuses – REF. NO. EPA-660/2–74–060

Precipitation Scavenging of Inorganic Pollutants from Metropolitan Sources – REF. NO. EPA-650/3–74–005

Prediction of Sub-soil Erodibility Using Chemical, Mineralogical and Physical Parameters – REF. NO. EPA-660/2–74–043

Preliminary Assessment of Wet Systems for Residential Refuse Collection – REF. NO. EPA-670/2–74–065

Preliminary Design of a Comprehensive Waste Oil Processing Facility — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–056

Preliminary Design of a Household Refuse Grinder – REF. NO. EPA-670/2–74–020

Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume I – Executive Summary – REF. NO. EPA-600/2–76–046a

Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume II – Final Report – REF. NO. EPA-600/2–76–046b

Preliminary Milk Report — Abstracted 600/9–75–001c — REF. NO. EPA-680/4–75–007

Preparation and Evaluation of Activated Carbon Produced from Municipal Refuse – REF. NO. EPA-670/2–73–010

Preventing Landfill Leachate Contamination of Water – REF. NO. EPA-670/2–73–021

Pricing for Water Supply: Its Impact on Systems Management – REF. NO. EPA-670/1–74–001

Problems and Opportunities in Management of Combustible Solid Wastes – REF. NO. EPA-670/2–73–056

Procedures for Measurement in Stratified Gases – Volume I – REF. NO. EPA-650/2–74–086a

Procedures for Measurement in Stratified Gases – Volume II, Appendices – REF. NO. EPA-650/2–74–086b

Proceeding, Coal Combustion Seminar, June 19–20, 1973 – REF. NO. EPA-650/2–73–021

Proceedings of the Solvent Reactivity Conference – REF. NO. EPA-650/3–74–010

Proceedings of First US/USSR Symposium on Comprehensive Analysis of the Environment – REF. NO. EPA-600/9–75–004

Proceedings of Seminar on Methodology for Monitoring the Marine Environment – REF. NO. EPA-600/4–74–004

Proceedings of Symposium on Statistical Aspects of Air Quality – REF. NO. EPA-650/4–74–038

Proceedings of Third International Conference on Fluidized-Bed Combustion – REF. NO. EPA-650/2–73–053

Proceedings Fourth National Symposium on Food Processing Wastes – REF. NO. EPA-660/2–73–031

Proceedings, Symposium Control of Fine-Particulate Emissions from Industrial Sources, January 15–18, 1974 San Francisco, CA – REF. NO. EPA-600/2–74–008

Proceedings: Biostimulation-Nutrient Assessment Workshop — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–034

Proceedings: Fifth National Symposium on Food Processing Wastes – REF. NO. EPA-660/2–74–058

TITLE INDEX

Proceedings: Flue Gas Desulfurization Symposium 1973 – REF. NO. EPA-650/2–73–038
Proceedings: Symposium on the Use of Fabric Filters for the Control of Submicron Particulates (April 8–10, 1974, Boston, Ma.) – REF. NO. EPA-650/2–74–043
Proceedings: Symposium on Flue Gas Desulfurization – Atlanta, November 1974, Volume II – REF. NO. EPA-650/2–74–126b
Proceedings: Symposium on Fine Particles – Minneapolis, Minnesota, May 1975 — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–059
Process and Environmental Technology for Producing SNG and Liquid Fuels — Abstracted 600/9–75–001b — REF. NO. EPA-660/2–75–011
Process Modifications for Control of Particulate Emissions from Stationary Combustion, Incineration, and Metals – REF. NO. EPA-650/2–74–100
Production of Clean Fuel Gas From Bituminous Coal – REF. NO. EPA-650/2–73–049
Production of Low-Sulfur Gasoline – REF. NO. EPA-650/2–74–130
Program for Preventing and Eliminating Oil Pollution of the Buffalo River – REF. NO. EPA-600/2–76–029
Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase II – REF. NO. EPA-650/2–73–005a
Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase IIa – NO_x – REF. NO. EPA-650/2–73–005b
Program for Reduction of NO_x from Tangential Coal-Fired Boilers – Phase 1 – REF. NO. EPA-650/2–73–005
Programmed Demonstration for Erosion and Sediment Control Specialist – REF. NO. EPA-660/2–74–071
Progress in Instrumentation and Techniques for Measurement of Air Pollutants – REF. NO. EPA-650/2–74–015
Projects in the Industrial Pollution Control Division – December 1974 — Abstracted 600/9–75–001a — REF. NO. EPA-600/2–75–001
Promising Technologies for Treating Hazardous Waste – REF. NO. EPA-670/2–74–088
Promoting Environmental Quality Through Urban Planning and Control – REF. NO. EPA-600/5–73–015
Properties of Ammonium Sulfate, Ammonium, and Sulfur Dioxide Solutions in Ammonia Scrubbing Processes – REF. NO. EPA-650/2–73–012
Protein Production from Acid Whey VIA Fermentation – REF. NO. EPA-660/2–74–025
Protocol for Evaluating the Nitrogen Status of Lake Sediments – REF. NO. EPA-660/3–73–024
Protocol to Characterize Gaseous Emissions as a Function of Fuel and Additive Composition — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–048
Public Attitudes Toward Hazardous Waste Disposal Facilities – REF. NO. EPA-670/2–73–086
Publications Bibliography – 1975 – REF. NO. EPA-600/9–76–002
Puget Sound Oceanographic Field Studies Data Report, Everett, BELLINGHAM, Port Angeles, 1962–63 – REF. NO. EPA-660/3–73–014
Pyrolysis of Solid Municipal Wastes – REF. NO. EPA-670/2–73–039
POPEX—Ranking Air Pollution Sources by Population Exposure – REF. NO. EPA-600/2–76–063
Quality of Life Concept – A Potential New Tool For DecisionMakers – REF. NO. EPA-600/5–75–011
Quality of Life Indicators in U.S. Metropolitan Areas, 1970: A Comprehensive Assessment — Abstracted 600/9–75–001d — REF. NO. EPA-600/5–75–016
Quality Assurance Handbook for Air Pollution Measurement Systems. Volume I. Principles – REF. NO. EPA-600/9–76–005
Quality Assurance Program for the EPA/Shawnee Wet Limestone Scrubber Demonstration – REF. NO. EPA-600/2–76–080
Quantification of Pollution in Agricultural Runoff – REF. NO. EPA-660/2–74–005
Quantitative Analysis of Airborne Asbestos by X-Ray Diffraction: Final Report on Feasibility Study – REF. NO. EPA-650/2–75–004
Quantitative Method for Effluent Compliance Monitoring Resource Allocation — Abstracted 600/9–75–00[illegible]c — REF. NO. EPA-600/5–75–015
Quantitative Method for Toxaphene by GC-CI-MS Specific Ion Monitoring – REF. NO. EPA-600/4–76–010
Radiation Quality Assurance Intercomparison Studies 1974–1975 — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–014
Radiation Treatment of High Strength Chlorinated Hydrocarbon Wastes — Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–017
Radioactivity Standards Distribution Program – 1975 — Abstracted 600/9–75–001b — REF. NO. EPA-680/4–75–002a
Radioactivity Standards Distribution Program, 1973 – 1974 – REF. NO. EPA-680/4–73–001A
Radiolytic Hydrolysis of Cellulose – REF. NO. EPA-670/2–73–030
Rainfall-Runoff Relations on Urban and Rural Areas — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–046
Rapid Method for Determining NO_x Emissions in Flue Gases – REF. NO. EPA-600/2–76–094
Rationale and Methodology for Monitoring Groundwater Polluted by Mining Activities (Formerly 600/4–74–003) – REF. NO. EPA-680/4–74–003
Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume I – Technical Discussion – REF. NO. EPA-670/2–74–024A
Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume II – Appendices – REF. NO. EPA-670/2–74–024B
Raw Sewage Coagulation and Aerobic Sludge Digestion — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–049
Reactivity of Polynuclear Aromatic Hydrocarbons with O_2 and NO in the Presence of Light – REF. NO. EPA-650/1–74–010
Realistic Models for Mortality Rates and Their Estimation – REF. NO. EPA-600/1–76–015
Recirculating Waste System for Swine Units – REF. NO. EPA-670/2–73–025
Reclamation of Energy from Organic Waste – REF. NO. EPA-670/2–74–016
Reclamation of Metal Values from Metal-Finishing Waste Treatment Sludges — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–018
Reclamation of Sulfuric Acid From Waste Streams — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–016
Recommended Design of Sample Intake Systems for Automatic Instrumentation — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–012
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I – Summary Report – REF. NO. EPA-670/2–73–053A

TITLE INDEX

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume II – Toxicologic Summary – REF. NO. EPA-670/2-73-053B

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume III – Disposal Process Discriptions: Ultimate Disposal Incineration, and Pyrolysis Processes – REF. NO. EPA-670/2-73-053C

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volum IV – Disposal Process Descriptions: Biological and Miscellaneous Waste Treatment Processes – REF. NO. EPA-670/2-73-053D

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume V – National Disposal Site Candidate Waste Stream Constituent Profile Reports – Pesticides and Cyanide Compounds – REF. NO. EPA-670/2-73-053E

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VI – National Disposal Site Candidate Waste Stream Constituent Profile Report – Mercury, Arsenic, Chromium and Cadmium Compounds – REF. NO. EPA-670/2-73-053F

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Propellants, Explosives, and Chemical Warfare Materiel – REF. NO. EPA-670/2-73-053G

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VIII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Miscellaneous Inorganic and Organic Compounds – REF. NO. EPA-670/2-73-053H

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume IX – National Disposal Site Candidate Waste Stream Constituent Profile Report – Radioactive Materials – REF. NO. EPA-670/2-73-053I

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume X – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds – REF. NO. EPA-670/2-73-053J

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XI – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds – REF. NO. EPA-670/2-73-053K

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds – REF. NO. EPA-670/2-73-053L

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds – REF. NO. EPA-670/2-73-053M

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIV – Summary of Waste Origins, Forms and Quantities – REF. NO. EPA-670/2-73-053N

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XV – Research and Development Plans – REF. NO. EPA-670/2-73-053O

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XVI – References – REF. NO. EPA-670/2-73-053P

Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I thru Volume XVI – REF. NO. EPA-670/2-73-053A-P

Recovery of Fatty Materials From Edible Oil Refinery Effluents – REF. NO. EPA-660/2-73-015

Recycle of Synthetic Warp Sizes From Textile Desizing Wastewater --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-014

Recycling of Waste Oils --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-068

Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion – REF. NO. EPA-650/2-74-057

Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion and Regeneration of Sulfur-Containing Additives – REF. NO. EPA-650/2-74-104

Refinery Catalytic Cracker Reginerator SO_x Control Process Survey – REF. NO. EPA-650/2-74-082

Refinery Effluent Water Treatment Plant Using Activated Carbon --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-020

Regeneration of Chromated Aluminum Deoxidizers – REF. NO. EPA-660/2-73-023

Regenerative Limestone Process for Fluidized – Bed Coal Combustion and Desulfurization – REF. NO. EPA-650/2-74-001

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 1 – REF. NO. EPA-600/3-76-011a

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 2 – REF. NO. EPA-600/3-76-011b

Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 3 – REF. NO. EPA-600/3-76-011c

Regional Air Pollution Study Program – Final Report – REF. NO. EPA-650/3-75-009

Regional Air Pollution Study: Expeditionary Research Program, Summer 1975 – REF. NO. EPA-600/3-76-016

Regional Governmental Arrangements in Metropolitan Areas: Nine Case Studies – REF. NO. EPA-600/5-74-024

Relationship Between Circumsolar Sky Brightness and Atmospheric Aerosols – REF. NO. EPA-650/4-75-012

Relationship Between Diameter and Height for the Design of a Swirl Concentrator as a Combined Sewer Overflow Regulator – REF. NO. EPA-670/2-74-039

Remote Measurement of Power Plant Smoke Stack Effluent Velocity – REF. NO. EPA-650/2-75-062

Remote Sensing of Air Pollution in Urban Areas – REF. NO. EPA-650/2-73-026

Remote Sensing of Pollutants – Computerized Reduction of Long-Path Absorption Data – REF. NO. EPA-650/2-74-113

Removal of Chromium from Plating Rinse Water Using Activated Carbon --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-055

Removal of Heavy Metals from Mine Drainage by Precipitation – REF. NO. EPA-670/2-73-080

Removal of Manganese From Mine Drainage by Ozone and Chlorine --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-006

Renovation of Industrial Inorganic Wastewater by Evaporation with Interface Enhancement – REF. NO. EPA-600/2-76-017

Renovation of Secondary Effluent for Re-use as a Water Resource – REF. NO. EPA-660/2-74-016

Replacement of Activated Sludge Secondary Clarifiers by Dynamic Straining --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-045

Report on the Problem of Halogenated Air Pollutants and Stratospheric Ozone --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/9-75-008

Research and Development of a Selective Algaecide to Control Nuisance Algal Growth-Phase III – REF. NO. EPA-660/3-74-019

Research Needs and Priorities: Water Pollution Control Benefits and Cost – Volume II – REF. NO. EPA-600/5-73-008b

TITLE INDEX

Research Needs for the Potable Reuse of Municipal Wastewater – REF. NO. EPA-600/9-75-007
Research Status of Effects of Land Application of Animal Wastes — Abstracted 600/9-75-001b — REF. NO. EPA-660/2-75-010
Research Study of Coal Preparation Plant and By-Product Coke Plant Effluents – REF. NO. EPA-660/2-74-050
Residential Oil Furnace System Optimization—Phase I – REF. NO. EPA-600/2-76-038
Results of Ocean Diffusion and Biological Studies of the Hollywood, Florida, Ocean Outfall – REF. NO. EPA-600/3-76-003
Reuse of Power Plant Desulfurization Waste Water – REF. NO. EPA-600/2-76-024
Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent – REF. NO. EPA-670/2-74-077
Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent; Appendix A-2 and Appendix A-6 — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-027
Review of the Physiological Impact of Mercurials – REF. NO. EPA-660/3-73-022
Review of Environmental Impact Assessment Methodologies – REF. NO. EPA-600/5-74-002
Review of Landspreading of Liquid Municipal Sewage Sludge — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-049
Reviewing Environmental Impact Statements – Power Plant Cooling Systems, Engineering Aspects – REF. NO. EPA-660/2-73-016
Reviews of Current Literature on Analytical Methodology and Quality Control – Activities for 1973 through 1974 – REF. NO. EPA-670/4-74-003b
Role of Mixed Function Oxidases in Insecticide Action – REF. NO. EPA-600/1-76-002
Role of Polyelectrolytes in Filtration Processes – REF. NO. EPA-670/2-74-032
Role of Solid-Gas Interactions in Air Pollution – REF. NO. EPA-650/3-74-007
Role of Trace Elements in Management of Nuisance Growths — Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-008
Rotating Biological Disk Wastewater Treatment Process – Pilot Plant Evaluation – REF. NO. EPA-670/2-73-027
Routing of Solid Waste Collection Vehicles, Final Report: Appendix A – Manual for Use of the Computer Codes — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-036a
Routing of Solid Waste Collection Vehicles: Appendix B – A Heuristic Solution to the M-Postmen's Problem — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-036b
Rum Distillery Slops Treatment by Anaerobic Contact Process – REF. NO. EPA-660/2-74-074
Ruthenium: Its Behavior in Plant and Soil Systems – REF. NO. EPA-600/3-76-019
Saline Groundwater Produced with Oil and Gas – REF. NO. EPA-660/2-74-010
Salt Water Detection in the Cimarron Terrace, Oklahoma — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-74-033
Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume I – REF. NO. EPA-600/2-76-012a
Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume II. Process Analysis of Petroleum Refinery Streams – REF. NO. EPA-600/2-76-012b
Sampling and Identification of Pollutant Oils in Industrial Watercourses – REF. NO. EPA-600/2-76-031
Sampling Interface for Quantitative Transport of Aerosols — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-016
Sanitary Landfill Stabilization with Leachate Recycle and Residual Treatment — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-043
Sasol Type Process for Gasoline, Methanol, SNG, and Low-BTU Gas from Coal – REF. NO. EPA-650/2-74-072
Scale Control in Limestone Wet Scrubbing Systems — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-031
Scientific and Technical Assessment Report on Cadmium — Abstracted 600/9-75-001d — REF. NO. EPA-600/6-75-003
Scientific and Technical Assessment Report on Manganese – REF. NO. EPA-600/6-75-002
Scientific and Technical Assessment Report on Particulate Polycyclic Organic Matter (PPOM) – REF. NO. EPA-600/6-75-001
Scientific and Technical Assessment Report on Vinyl Chloride and Polyvinyl Chloride – REF. NO. EPA-600/6-75-004
Scientific Irrigation Scheduling for Salinity Control of Irrigation Return Flows — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-064
Scientific Seminar on Automotive Pollutants – REF. NO. EPA-600/9-75-003
Scrap Rubber Tire Utilization in Road Dressings – REF. NO. EPA-670/2-74-014
Second Annotated Bibliography of Biological Effects of Metals in Aquatic Environments — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-008
Second U.S. – Japan Conference on Sewage Treatment Technology December 1–6, 1972 – REF. NO. EPA-670/9-74-003
Secondary Fiber Recovery Incentive Analysis – REF. NO. EPA-670/5-74-004
Secondary Impact of Transportation and Wastewater Investments: Review and Bibliography — Abstracted 600/9-75-001a — REF. NO. EPA-600/5-75-002
Secondary Impacts of Transportation and Wastewater Investments: Research Results — Abstracted 600/9-75-001c — REF. NO. EPA-600/5-75-013
Sediments and Sediment-Water Nutrient Interchanges in Upper Klamath Lake, Oregon – REF. NO. EPA-660/3-74-015
Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume I – REF. NO. EPA-650/4-74-045a
Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume II – REF. NO. EPA-650/4-74-045b
Selected Abstracts for Instrumentation and Automation of Wastewater Facilities – REF. NO. EPA-670/2-73-104
Selected Characteristics of Hazardous Pollutant Emissions – REF. NO. EPA-600/2-74-004
Selected Irrigation Return Flow Quality Abstracts, 1974 – REF. NO. EPA-600/2-76-019
Selected Irrigation Return Flow Quality Abstracts: 1972–1973 – REF. NO. EPA-660/2-74-049
Selective Nutrient Removal Secondary Effluent – REF. NO. EPA-670/2-73-076
Selenium – REF. NO. EPA-600/1-76-014
Semi-Automatic Control of Activated Sludge Plants – State of the Technology – REF. NO. EPA-600/2-75-058
Seminar on Electrostatics and Fine Particles — September 1973 – REF. NO. EPA-650/2-74-081
Seminar Summary: Sampling and Analysis of the Various Forms of Atmospheric Lead – REF. NO. EPA-650/2-75-003
Separation, Dewatering, and Disposal of Sugar Beet Transport Water Solids Phase I – REF. NO. EPA-660/2-74-093
Sewer Flow Measurement – A State-of-the Art Assessment — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-027

TITLE INDEX

Sewerage System Monitoring and Remote Control --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–020
Short Course Proceedings: Applications of Stormwater Management Models --- Abstracted 600/9–75–001c --- REF. NO. EPA-670/2–75–065
Shrimp Canning Waste Treatment Study – REF. NO. EPA-660/2–74–061
Significance and Control of Waste Water Floatables in Coastal Waters – REF. NO. EPA-660/3–74–016
Silt Removal From a Lake Bottom --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/3–74–017
Simplified Atomic Absorption Determination of Stable Strontium in Milk and Hay – REF. NO. EPA-680/4–73–002
Simulation City Approach for Preparation of Urban Area Data Bases – REF. NO. EPA-600/5–74–001
Simultaneous and Automated Determination of Total Phosphorous and Total Kjeldahl – REF. NO. EPA-670/4–74–002
Single-Cell Protein From Waste Cellulose – REF. NO. EPA-670/2–73–095
Single-Stage Nitrification-Denitrification --- Abstracted 600/9–75–001c --- REF. NO. EPA-670/2–75–051
Sinter Plant Windbox Gas Recirculating System Demonstration – REF. NO. EPA-600/2–75–014
Sludge Conditioning Using SO_2 and Low Pressure for Production of Organic Feed Concentrate – REF. NO. EPA-670/2–73–062
Smog Chamber Conference Proceedings – REF. NO. EPA-600/3–76–029
Socio-Economic Factors Affecting Demand for Municipal Collection of Household Refuse – REF. NO. EPA-670/9–73–035
Sodium Conditioning to Reduce Fly Ash Resistivity – REF. NO. EPA-650/2–74–092
Soil Modification for Denitrification and Phosphate Reduction of Feed Lot Wastes – REF. NO. EPA-660/2–74–057
Solid Waste Conversion: Cellulose Liquefaction --- Abstracted 600/9–75–001a --- REF. NO. EPA-670/2–75–031
Solid Waste Disposal Final Report – REF. NO. EPA-650/2–74–033
Some Effects of Cadmium on Coniferous Forest Soil/Litter Microcosms --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/3–75–036
Some Topics Relating to Modeling of Dispersion in Boundary Layer – REF. NO. EPA-650/4–75–015
Source Assessment Prioritization of Air Pollution from Industrial Surface Coating Operations --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–019a
Source Assessment: Fertilizer Mixing Plants – REF. NO. EPA-600/2–76–032c
Source Assessment: Flat Glass Manufacturing Plants – REF. NO. EPA-600/2–76–032b
Source Assessment: Priorization of Stationary Air Pollution Sources—Model Description – REF. NO. EPA-600/2–76–032a
Sources and Characterization of Fine Particulate Test Dusts --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–117
Sources and Natural Removal Processes for Some Atmospheric Pollutants – REF. NO. EPA-650/4–74–032
Sources of Oil and Water in Biiges of Great Lakes Ships – REF. NO. EPA-670/2–74–054
Specific Ion Mass Spectrometric Detection for Gas Chromatographic Pesticide Analysis – REF. NO. EPA-660/2–74–004
Specifications for Materials Recovered from Municipal Refuse --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–034
Spectral Modeling of Atmospheric Flows and Turbulent Diffusion – REF. NO. EPA-600/4–76–007
Spectroscopic Study of California Smog – REF. NO. EPA-650/4–75–006
St. Louis Refuse Processing Plant Equipment, Facility, and Environmental Evaluations --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–044
St. Louis/Union Electric Refuse Firing Demonstration Air Pollution Test Support – REF. NO. EPA-650/2–74–073
State of the System (SOS) Model – REF. NO. EPA-600/5–73–013
State of Maryland Waste Oil Recovery and Reuse Program – REF. NO. EPA-670/2–74–013
State-of-the-Art Review: Water Pollution Control Benefits and Costs – Volume I – REF. NO. EPA-600/5–73–008a
State-of-the-Art: Sand and Gravel Industry – REF. NO. EPA-660/2–74–066
State-of-the-Art: Uranium Mining, Milling, and Refining Industry – REF. NO. EPA-660/2–74–038
State-of-the-Art: 1971 Instrumentation for Measurement of Particulate Emissions from Combustion Sources – REF. NO. EPA-650/2–73–022
State-of-The-Art For The Inorganic Chemicals Industry: Commercial Explosives --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/2–74–009b
State-of-The-Art For The Inorganic Chemicals Industry: Industrial Inorganic Gases --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/2–74–009c
State-of-The-Art For The Inorganic Chemicals Industry: Inorganic Pesticides --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/2–74–009a
Statistical Concepts for Design Engineers --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–080
Statistical Prediction of Equilibrium Temperature From Standard Meteorological Data Bases – REF. NO. EPA-660/2–73–003
Statistical Questions Relating to the Validation of Air Quality Simulation Models – REF. NO. EPA-650/4–75–010
Stone & Webster/Ionics SO_2 Removal and Recovery Process: Phase I, Final Report --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–045
Storage and Disposal of Iron Ore Processing Wastewater – REF. NO. EPA-660/2–74–018
Storm Water Management Model: Dissemination and User Assistance --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–041
Storm Water Management Model: User's Manual – Version II --- Abstracted 600/9–75–001a --- REF. NO. EPA-670/2–75–017
Stream Pollution Abatement by Supplement Pumping --- Abstracted 600/9–75–001a --- REF. NO. EPA-670/2–75–035
Structure and Reactivity of Adsorbed Oxides of Sulfur – REF. NO. EPA-650/3–74–006
Studies in Environment – Volume I – Summary Report – REF. NO. EPA-600/5–73–012a
Studies in Environment – Volume II – Quality of Life – REF. NO. EPA-600/5–73–012b
Studies in Environment – Volume III – Pollution and the Municipality – REF. NO. EPA-600/5–73–012c
Studies in Environment – Volume IV – Consumption Differentials and the Environment – REF. NO. EPA-600/5–73–012d
Studies in Environment – Volume V – Outdoor Recreation and the Environment – REF. NO. EPA-600/5–73–012e
Studies of Low Molecular Weight Lignin Sulfonates – REF. NO. EPA-660/2–74–069
Studies of Pollutant Concentration Frequency Distributions – REF. NO. EPA-650/4–75–004
Studies of Small Metallic Particles Formed by Homogeneous Nucleation: Light Scattering and Electron Microscopy – REF. NO. EPA-650/3–75–006

TITLE INDEX

Studies on Effects of Thermal Pollution in Biscayne Bay in Florida – REF. NO. EPA-660/3-74-014
Studies on Modifications of Solid Industrial Wastes – REF. NO. EPA-670/2-73-065
Studies on Southeastern Aquatic Insects – REF. NO. EPA-660/3-73-016
Studies to Determine Methods for Culturing Three Freshwater Zooplankton Species — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-010
Study of an Integrated Power, Water and Wastewater Utility Complex – REF. NO. EPA-670/2-74-080
Study of the Ecology of Pesticides – REF. NO. EPA-650/1-74-012
Study of the Economics of Hospital Solid Waste Systems – REF. NO. EPA-670/5-73-020
Study of the Effects of Low Levels of Carbon Monoxide Upon Humans Performing Driving Tasks – REF. NO. EPA-650/1-74-006
Study of the Social and Economic Impact of Odors – Phase III – REF. NO. EPA-650/5-73-001
Study of Aerosol Formation in Photochemical Air Pollution – REF. NO. EPA-650/3-75-007
Study of Air Pollutant Emissions from Residential Heating Systems – REF. NO. EPA-650/2-74-003
Study of Combustor Flow Computations and Comparison with Experiment – REF. NO. EPA-650/2-73-045
Study of Concepts for Minimizing Emissions From CokeOven Door Seals – REF. NO. EPA-650/2-75-064
Study of Corrosion in Municipal Incinerators Versus Refuse Composition — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-084
Study of Factors Affecting Reactions in Environmental Chambers Final Report on Phase II – REF. NO. EPA-650/3-74-004a
Study of Feasibility of Herbicide Orange Chlorinolysis – REF. NO. EPA-600/2-74-006
Study of Ferroalloy Furnace Product Flexibility – REF. NO. EPA-650/2-75-063
Study of Flux Force – Condensation Scrubbing of Fine Particules – REF. NO. EPA-600/2-75-018
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume I – REF. NO. EPA-670/2-73-014
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume II – REF. NO. EPA-670/2-73-015
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume III – REF. NO. EPA-670/2-73-016
Study of Incinerator Residue Analysis of Water Soluble Components – REF. NO. EPA-670/2-73-057
Study of Indoor Air Quality – REF. NO. EPA-650/4-74-042
Study of Institutional Solid Wastes – REF. NO. EPA-670/2-73-083
Study of Pan-Type Compounds and Related Precursors – REF. NO. EPA-600/3-76-012
Study of Potential Problems and Optimum Opportunities in Retrofitting Industrial Processes to Low and Intermediate Energy Gas from Coal – REF. NO. EPA-650/2-74-052
Study of SO_x Control For Selected Industrial Boilers – REF. NO. EPA-600/2-75-011
Study of Upflow Filter for Tertiary Treatment – REF. NO. EPA-670/2-73-074
Study on Technical and Economic Feasibility of a Hydrogenation Process for Utilization of Waste Rubber – REF. NO. EPA-670/2-73-066
Submerged Combustion Evaporator for Concentration of Brewery Spent Grain Liquor – REF. NO. EPA-660/2-74-059
Subsurface Biological Activity in Relation to Ground Water Pollution – REF. NO. EPA-660/2-73-014
Sulfur and Nitrogen Balances in the Solvent Refined Coal Process — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-011
Sulfur Compound Emissions of the Petroleum Production Industry — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-030
Sulfur Content of Douglas Fir Foliage Near a Paper Mill – REF. NO. EPA-660/3-74-018
Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume I: Final Report – Executive Summary — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-010a
Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume II: Final Report – Technical Discussion — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-010b
Sulfur Reduction Potential of U.S. Coals: A Revised Report of Investigations – REF. NO. EPA-600/2-76-091
Sulfuric Acid and Ferrous Sulfate Recovery From Waste Pickle Liquor – REF. NO. EPA-660/2-73-032
Sulfuric Acid Plant Emissions During Start-up, Shutdown, and Malfunction – REF. NO. EPA-600/2-76-010
Summary Report – Pilot Plant Studies on Dewatering Primary Digested Sludge – REF. NO. EPA-670/2-73-043
Summary Report, Trail-Marking and Alarm Pheromones of Some Ants of the Genus Atta – REF. NO. EPA-660/2-74-081
Summary Report: Workshop on Ozone Measurement by the Potassium Iodide Method – REF. NO. EPA-650/4-75-007
Summation of Conditions and Investigations for the Complete Combustion of Organic Pesticides — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-044
Surface Effects Skimmer Development — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-066
Surge Facility for Wet and Dry Weather Flow Control – REF. NO. EPA-670/2-74-075
Survey and Evaluation of Kinetic Data on Reactions in Methane/Air Combustion – REF. NO. EPA-600/2-76-003
Survey of Corrosion Products in the Seattle Water Department Tolt Distribution — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-036
Survey of Flue Gas Desulfurization Systems – Dickerson Station, Potomac Electric Power Company – REF. NO. EPA-650/2-75-057g
Survey of Flue Gas Desulfurization Systems – Eddystone Station, Philadelphia Electric Company – REF. NO. EPA-650/2-75-057f
Survey of Flue Gas Desulfurization Systems – Hawthorn Station, Kansas City Power and Light Co. – REF. NO. EPA-650/2-75-057h
Survey of Flue Gas Desulfurization Systems – Lawrence Power Station, Kansas Power and Light Company – REF. NO. EPA-650/2-75-057e
Survey of Flue Gas Desulfurization Systems – Mohave Station, Southern California Edison Co. – REF. NO. EPA-650/2-75-057k
Survey of Flue Gas Desulfurization Systems – Reid Gardner Station, Nevada Power Co. – REF. NO. EPA-650/2-75-057j
Survey of Flue Gas Desulfurization Systems – Will County Station, Commonwealth Edison Co. – REF. NO. EPA-650/2-75-057i
Survey of Flue Gas Desulfurization Systems Cholla Power Generating Station, Arizona Public Service Company — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-057a
Survey of Flue Gas Desulfurization Systems La Cygne Station, Kansas City Power and Light Co. and Kansas Gas and Electric Co. — Abstracted 600/9-75-001d — REF. NO. EPA-650/2-75-057b
Survey of Flue Gas Desulfurization Systems Paddy's Run Station, Louisville Gas and Electric – REF. NO. EPA-650/2-75-057d

TITLE INDEX

Survey of Flue Gas Desulfurization Systems Phillips Power Station, Duquesne Light Co. – REF. NO. EPA-650/2–75–057c

Survey of Manual Methods of Measurements of Asbestos, Beryllium, Lead, Cadmium, Selenium, and Mercury in Stationary Source Emissions – REF. NO. EPA-650/4–74–015

Survey of Marine Communities in Panama and Experiments with Oil – REF. NO. EPA-600/3–76–028

Survey of Users of the EPA – Reference Method for Measurement of Non-Methane Hydrocarbons in Ambient Air – REF. NO. EPA-650/4–75–008

Survival of Pathogens in Animal Manure Disposal – REF. NO. EPA-670/2–73–051

Survival of Pathogens in Animal Manure Disposal --- Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–012

Suspended Solids Monitor --- Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–002

Symposium on Electrostatic Precipitators for the Control of Fine Particles --- Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–016

Symposium on Flue Gas Desulfurization – Atlanta, November 1974 Volume I – REF. NO. EPA-650/2–74–126a

Symposium Proceedings: Environmental Aspects of Fuel Conversion Technology (May 1974, St. Louis, Missouri) --- Abstracted 600/9–75–001b — REF. NO. EPA-650/2–74–118

Synergistic Effect of Polonium-210 and Cigarette Smoke in Rats --- Abstracted 600/9–75–001b — REF. NO. EPA-680/1–75–001

Synthesis and Purification of Carcinogenic Polynuclear Aromatic Hydrocarbon Standards – REF. NO. EPA-650/2–74–040

Synthesis of Trifluoromethylsulfur Pentafluoride (CF_3SF_5) – REF. NO. EPA-650/4–74–010

System Alternatives in Oxygen Activated Sludge --- Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–008

System Analysis of Air Pollutant Emissions from the Chemical/ Plastics Industry – REF. NO. EPA-650/2–74–106

Systems Analysis Requirements for Nitrogen Oxide Control of Stationary Sources – REF. NO. EPA-650/2–74–091

Systems Simulation and Solid Waste Planning: A Case Study – REF. NO. EPA-670/5–73–012

SO_2 Abatement for Stationary Sources in Japan – REF. NO. EPA-600/2–76–013a

SO_2 Control Processes for Non-Ferrous Smelters – REF. NO. EPA-600/2–76–008

SO_2 Reduction in Non-utility Combustion Sources – Technical and Economic Comparison of Alternatives --- Abstracted 600/9–75–001d — – REF. NO. EPA-600/2–75–073

SWIRL Concentrator as a Grit Separator Device – REF. NO. EPA-670/2–74–026

Taxonomy and Ecology of Stenonema Mayflies (Heptageniidae: Ephemeroptera) --- Abstracted 600/9–75–001a — REF. NO. EPA-670/4–74–006

Taxonomy of Klebsiella pneumoniae Isolated From Pulp/Paper Mill Wastewater --- Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–024

Technical and Economic Evaluation of Cooling Systems Blowdown Control Techniques – REF. NO. EPA-660/2–73–026

Technical Manual for Analysis of Organic Materials in Process Streams – REF. NO. EPA-600/2–76–072

Technical Manual for Measurement of Fugitive Emissions: Upwind/Downwind Sampling Method for Industrial Emissions – REF. NO. EPA-600/2–76–089a

Technical Support Document for the Proposed Replacement Reference Method for Nitrogen Dioxide – REF. NO. EPA-600/4–75–003

Techniques for Measuring Fly Ash Resistivity – REF. NO. EPA-650/2–74–079

Techniques for Optimizing a Quadrupole GC/MS/Computer System – REF. NO. EPA-600/4–76–004

Temperature Effects on Eggs and Fry of Percoid Fishes --- Abstracted 600/9–75–001b — REF. NO. EPA-660/3–75–017

Temperature, Infectious Diseases and the Immune Response in Salmonid Fish – REF. NO. EPA-600/3–76–021

Tentative Procedures for Particle Sizing in Process Streams— Cascade Impactors – REF. NO. EPA-600/2–76–023

Tentative Reference Method for the Measurement of Gross Alpha and Gross Beta Radioactivities in Environmental Waters --- Abstracted 600/9–75–001c — REF. NO. EPA-680/4–75–005

Tentative Reference Method for Measurement of Tritium in Environmental Waters --- Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–013

Tertiary Treatment for Phosphorus Removal at Ely, Minnesota AWT Plant, April 1973 thru March 1974 – REF. NO. EPA-600/2–76–082

Tertiary Treatment With a Controlled Ecological System – REF. NO. EPA-660/2–73–022

Test Evaluation of Cat-Ox High Efficiency Electrostatic Precipitator --- Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–037

Test Method for Volatile Component Stripping of Wastewater – REF. NO. EPA-660/2–74–044

Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume I --- Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–026a

Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume II – Appendices --- Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–026b

Theoretical and Experimental Study of the Lime/Limestone Wet Scrubbing Process --- Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–006

Theoretical Model and Solubility Characteristics of Aroclor R 1254 in Water: Problems Associated with Low-Solubility Compounds in Aquatic Toxicity Test --- Abstracted 600/9–75–001a — REF. NO. EPA-660/3–74–013

Thermal Radiation Modeling for Pollution Predictions – REF. NO. EPA-650/2–74–011

Thermophilic Aerobic Digestion of Organic Solid Wastes – REF. NO. EPA-670/2–73–061

Third U.S. — Japan Conference on Sewage Treatment Technology, Proceedings, February 12 – 16, 1974 --- Abstracted 600/9–75–001c — – REF. NO. EPA-670/9–75–005

Thor V Solventless Metal Decorating for Three-Piece Cans— Background – REF. NO. EPA-600/2–76–011

Tidal Flats in Estuarine Water Quality Analysis --- Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–025

Tissue Enzyme Assay for Chlorinated Hydrocarbon Insecticides – REF. NO. EPA-660/2–73–027

Total Suspended Particulates: Review and Analysis – REF. NO. EPA-600/2–76–092

Toxaphene Effects on Reproduction, Growth, and Mortality of Brook Trout – REF. NO. EPA-600/3–75–013

Toxicity of Chlorinated Power Plant Condenser Cooling Waters to Fish – REF. NO. EPA-600/3–76–009

Toxicity of Selected Pesticides to the Bay Mussel (Mytilus edulis) --- Abstracted 600/9–75–001b — REF. NO. EPA-660/3–75–016

Toxicology of Metals – Volume I – REF. NO. EPA-600/1–76–018

Trace Pollutant Emissions from the Processing of Metallic Ores – REF. NO. EPA-650/2–74–115

TITLE INDEX

Trace Pollutant Emissions from the Processing of Non-Metallic Ores – REF. NO. EPA-650/2–74–122
Trace Substances and Tobacco Smoke in Interaction with Nitrogen Oxides: Biological Effects – REF. NO. EPA-600/1–76–021
Training Manual for Teratology – REF. NO. EPA-650/1–73–001
Transport of Oxidant Beyond Urban Areas – REF. NO. EPA-600/3–76–018
Travels of Airborne Pollen – REF. NO. EPA-650/3–75–003
Treatment and Recovery of Fluoride Industrial Waste – REF. NO. EPA-660/2–73–024
Treatment and Ultimate Disposal of Cattle Feedlot Wastes — Abstracted 600/9–75–001b — REF. NO. EPA-660/2–75–013
Treatment of Cheese Processing Wastewaters in Aerated Lagoons – REF. NO. EPA-660/2–74–012
Treatment of Combined Sewer Overflows by Dissolved Air Flotation — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–033
Treatment of Domestic Wastewater and NSSC Pulp and Paper Mill Wastes – REF. NO. EPA-660/2–73–010
Treatment of Hazardous Material Spills With Floating Mass Transfer Media – REF. NO. EPA-670/2–73–078
Treatment of Packing House Waste by Anaerobic Lagoons in Plastic-Media Filters – REF. NO. EPA-660/2–74–027
Treatment of Sulfite Evaporator Condensates for Recovery of Volatile Components – REF. NO. EPA-660/2–73–030
Treatment of Textile Wastewater by Activated Sludge and Alum Coagulation — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–055
Trench Incorporation of Sewage Sludge in Marginal Agricultural Land — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–034
Tritium Accumulation in Lettuce Fumigated with Elemental Tritium – REF. NO. EPA-600/3–76–006
Tritium Fractionation in Plants — Abstracted 600/9–75–001c — REF. NO. EPA-680/4–75–006
Tropic Classification of Lakes Using LANDSAT-1 (ERTS-1) Multispectral Scanner Data – REF. NO. EPA-600/3–76–037
Turbulence Modeling and Its Application to Atmospheric Diffusion. Part I: Recent Program Development, Verification, and Application — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–016a
Turbulence Modeling and Its Application to Atmospheric Diffusion. Part II: Critical Review of the Use of Invariant Modeling — Abstracted 600/9–75–001d — REF. NO. EPA-600/4–75–016b
Turbulent Bed Cooling Tower — Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–027
Turbulent Diffusion in Liquid Jets: Final Report – REF. NO. EPA-660/3–74–004b
Turbulent Diffusion in Liquid Jets: Part I – REF. NO. EPA-660/3–74–004a
U-Tube Aeration – REF. NO. EPA-670/2–73–031
Ultraviolet Disinfection of Activated Sludge Effluent Discharging to Shellfish Waters – REF. NO. EPA-600/2–75–060
Up-Dip Versus Down-Dip Mining: An Evaluation — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–047
Upgrading Wastewater Stabilization Ponds to Meet New Discharge Standards — Abstracted 600/9–75–001a — REF. NO. EPA-670/9–75–004
Urban Runoff Pollution Control Program Overview: FY 76 – REF. NO. EPA-600/2–76–095
Urban Stormwater Management and Technology: An Assessment – REF. NO. EPA-670/2–74–040
Urban Stormwater Management Modeling and Decision-Making — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–022
Urban Street Cleaning — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–030
Use of Climatic Data in Design of Soils Treatment Systems — Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–018
Use of Domestic Waste Glass for Urban Paving – REF. NO. EPA-670/2–73–038
Use of Domestic Waste Glass for Urban Paving – Summary Report — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–053
Use of Environmental Analyses on Wastewater Facilities by Local Government – REF. NO. EPA-600/5–74–015
Use of Leucocyte Metabolism as a Health Effects Indicator – REF. NO. EPA-650/1–74–013
Use of Panelist as Substitutes for Taxicab Drivers in Carbon Monoxide Exposure – REF. NO. EPA-650/1–74–001
Use of Soil Parameters for Describing Pesticide Movement Through Soils — Abstracted 600/9–75–001b — REF. NO. EPA-660/2–75–009
Used Oil Law in the U.S. and Europe – REF. NO. EPA-600/5–74–025
User's Guide for Hiway, A Highway Air Pollution – REF. NO. EPA-650/4–74–008
User's Manual for the APRAC-1A Urban Diffusion Model Computer Program – REF. NO. EPA-650/3–73–001
Utilization of Bark Waste – REF. NO. EPA-670/2–73–005
Utilization of Fibrous Wastes as Sources of Nutrients – REF. NO. EPA-670/2–73–090
Utilization of Trickling Filters for Dual Treatment of Dry and Wet Weather Flows – REF. NO. EPA-670/2–73–071
Vapor-Phase Organic Pollutants – Volatile Hydrocarbons and Oxidation Products — Abstracted 600/9–75–001d — REF. NO. EPA-600/1–75–005
Vegetative Stabilization of Mineral Waste Heaps – REF. NO. EPA-600/2–76–087
Versatile Gas Filter Correlation Spectrometer – REF. NO. EPA-600/2–75–024
Vinyl Chloride – An Assessment of Emissions Control Techniques and Costs – REF. NO. EPA-650/2–74–097
Virus in Waste, Renovated, and Other Waters – 1973 Literature Abstracts – REF. NO. EPA-670/9–74–005
Virus-In-Water Study of Finished Water from Six Communities — Abstracted 600/9–75–001d — REF. NO. EPA-600/1–75–003
Viruses in Waste Renovated and other Viruses—1974 Literature Abstracts – REF. NO. EPA-670/9–75–007
Viruses in Waste Renovated and Other Viruses – 1972 Literature Abstracts – REF. NO. EPA-670/2–73–003
Volatization of Losses of Pesticides from Soil – REF. NO. EPA-660/2–74–054
Waste Automotive Lubricating Oil Reuse as a Fuel – REF. NO. EPA-600/5–74–032
Waste Citrus Activated Sludge As a Poultry Feed Ingredient — Abstracted 600/9–75–001a — REF. NO. EPA-660/2–75–001
Waste Control and Abatement in the Processing of Sweet Potatoes – REF. NO. EPA-660/2–73–021
Waste Oil Recycling and Disposal – REF. NO. EPA-670/2–74–052
Waste Treatment System for Confined Hog Raising Operations – REF. NO. EPA-660/2–74–047
Waste Water Treatment and Reuse in a Metal Finishing Job Shop – REF. NO. EPA-670/2–74–042
Wastewater Abatement in Canning Vegetables by IQB Blanching – REF. NO. EPA-660/2–74–006
Wastewater Characterization for the Specialty Food Industry – REF. NO. EPA-660/2–74–075
Wastewater Treatment and Reuse By Land Application, Volume I – Summary – REF. NO. EPA-660/2–73–006a

TITLE INDEX

Wastewater Treatment and Reuse By Land Application, Volume II – Summary – REF. NO. EPA-660/2-73-006b
Wastewater Use in the Production of Food and Fiber—Proceedings of Conference held at Oklahoma City, OK March 5–7, 1974 – REF. NO. EPA-660/2-74-041
Water and Waste Management in Poultry Processing – REF. NO. EPA-660/2-74-031
Water Quality Control in Mine Spoils — Upper Colorado River Basin — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-048
Water Quality Control Through a Single Crop Agriculture, No. 4 — Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-026
Water Quality Effect of Diking a Shallow Arid-Region Lake — Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-007
Water Quality Model for a Conjunctive Surface – Groundwater System – REF. NO. EPA-600/5-74-013
Water Quality Requirements of Aquatic Insects – REF. NO. EPA-660/3-73-004
Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia – Volume I – REF. NO. EPA-600/2-76-005a
Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia: Volume II – Appendices – REF. NO. EPA-600/2-76-005b
Water Recycle/Reuse Possibilities: Power Plant Boiler and Cooling System – REF. NO. EPA-660/2-74-089
Water Renovation of Municipal Effluents by Reverse Osmosis — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-009
Waterborne Wastes of the Paint and Inorganic Pigments Industries – REF. NO. EPA-670/2-74-030
Weed Harvest and Lake Nutrient Dynamics – REF. NO. EPA-660/3-73-001
Wet Scrubber Liquid Utilization – REF. NO. EPA-650/2-74-108
Wet Systems for Residential Refuse Collection: A Case Study for Springfield, Massachusetts – REF. NO. EPA-670/2-74-038
Wind Tunnel Evaluation of Particle Sizing Instruments – REF. NO. EPA-600/2-76-073
Wind Tunnel Tests of Negatively Buoyant Plumes – REF. NO. EPA-650/3-74-003
Wood Waste Reuse in Controlled Release Pesticides – REF. NO. EPA-670/2-73-034
World's Air Quality Management Standards: Volume 1 – The Air Quality Management Standards of the World, Including United States Federal Standards – REF. NO. EPA-650/9-75-001a
World's Air Quality Management Standards: Volume 11 – The Air Quality Management Standards of the United States – REF. NO. EPA-650/9-75-001b
WATER RESOURCES: Utilization and Conservation in the Environment — Abstracted 600/9-75-001d — REF. NO. EPA-600/9-75-006
X-Ray Fluorescence Multispectrometer for Rapid Elemental Analysis of Particulate Pollutants – REF. NO. EPA-600/2-76-033
Zooplankton Production in Lake Ontario as Influenced by Environmental Perturbations — Abstracted 600/9-75-001c — REF. NO. EPA-660/3-75-021
200 MGD Activated Sludge Plant Removes Phosphorus by Pickle Liquor – REF. NO. EPA-670/2-73-050

CURRENT SUBJECT AREA INDEX

HEALTH EFFECTS

Actions of Pesticides and Other Drugs on the Male Reproductive System – REF. NO. EPA-650/1-74-011
Air Pollution Exposure and Immunoglobulin Levels – REF. NO. EPA-650/1-75-005
Ambient Air Measurements of Vinyl Chloride in the Niagara Falls Area – REF. NO. EPA-650/4-75-020
Assessment of Toxicity of Automotive Metallic Emissions. Volume I: Assessment of Fuel Additives Emission Toxicity via Selected Assays of Nucleic Acid and Protein Synthesis – REF. NO. EPA-600/1-76-010a
Assessment of Toxicity of Automotive Metallic Emissions. Volume II: Relative Toxicities of Automotive Metallic Emissions Against Lead Compounds Using Biochemical Parameters – REF. NO. EPA-600/1-76-010b
Baseline Levels of Platinum and Palladium in Human Tissue – REF. NO. EPA-600/1-76-019
Bibliography of the Cat: Revised Edition – REF. NO. EPA-600/1-76-007
Cadmium in the Environment – III A Toxicological and Epidemiological Appraisal – REF. NO. EPA-650/2-75-049
Chemistry and Mode of Action of Insecticides – REF. NO. EPA-600/1-76-004
Chlorine and Hydrogen Chloride – REF. NO. EPA-600/1-76-020
Collection and Analysis of Airborne Suspended Particulate Matter Respirable to Humans for Sulfates and Polycyclic Organics — Abstracted 600/9-75-001d — REF. NO. EPA-600/4-75-009
Community Health Environmental Surveillance Studies (CHESS) Air Pollution Monitoring Handbook: Manual Methods – REF. NO. EPA-600/1-76-011
Comparability of Nine Methods for Monitoring NO_2 in Ambient Air – REF. NO. EPA-650/4-74-012
Comparative Methylation Chemistry of Platinum, Palladium, Lead, and Manganese – REF. NO. EPA-600/1-76-016
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Summary Report — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050a
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix A. Weather and Lake Level Data, Water Quality Data, and Raw Water Pumping Schedule — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050b
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix B. Design, Installation and Operation of Pilot Filters. Appendix C. Summary of Data for Individual Filter Runs — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050c
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix D. Head Loss and Turbidity Curves for Individual Filter Runs — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050d
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix E. Ontario Research Foundation Electron Microscope Analysis Results. Appendix F. EPA National Water Quality Laboratory X-Ray Diffraction Analysis Results. Appendix G. University of Minnesota at Duluth Electron Microscope Analysis Results — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050e
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix H. Comparison of Turbidimeters — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050f
Direct Filtration of Lake Superior Water for Asbestiform Fiber Removal – Appendix I. Diatomite Filters for Asbestiform Fiber Removal from Water — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-050g
Effect of Carbon Monoxide on Time Perception – REF. NO. EPA-650/1-74-005
Effect of Duck Hepatitis Virus on Pesticide Toxicity – REF. NO. EPA-600/1-76-003
Effects of Low Levels of Ozone and Temperature Stress – REF. NO. EPA-600/1-76-001
Effects of Oxidant and Sulfate Interaction on Production of Lung Lesions – REF. NO. EPA-600/1-76-009
Epidemiology of Chronic Respiratory Disease: A Literature Review – REF. NO. EPA-650/1-74-007
Evaluation of Semipermeable Membranes for Concentration of Organic Contaminants in Drinking Water — Abstracted 600/9-75-001c — REF. NO. EPA-670/1-75-001
Fluorescence Immunoassay Technique for Detecting Organic Environmental Contaminants – REF. NO. EPA-650/1-75-004
Formation of Halogenated Organics By Chlorination of Water Supplies — Abstracted 600/9-75-001b — REF. NO. EPA-600/1-75-002
Handbook for Evaluating Water Bacteriology — Abstracted 600/9-75-001c — REF. NO. EPA-670/9-75-006
Health and Annoyance Impact of Odor Pollution – REF. NO. EPA-650/1-75-001
Health Consequences of Sulfur Oxides: A Report from CHESS, 1970-1971 – REF. NO. EPA-650/1-74-004
In-Vitro Screening Methods Evaluating the Neurotoxic Potential of Pesticides – REF. NO. EPA-600/1-76-005
Interactions of Various Air Pollutants on Causation of Pulmonary Disease – REF. NO. EPA-650/1-73-002
Interim Radiochemical Methodology for Drinking Water — Abstracted 600/9-75-001c — REF. NO. EPA-600/4-75-008
Investigation of the Effects of Carbon Monoxide on Humans in the Driving Task – REF. NO. EPA-650/1-73-003
Lead: Environmental Sources and Red Cell Toxicity in Urban Children – REF. NO. EPA-650/1-75-003
Literature Review and Bibliography of Mammalian Toxicology of Select Munitions — Abstracted 600/9-75-001c — REF. NO. EPA-670/9-75-008
Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples – REF. NO. EPA-600/1-76-017
Mathematical Analysis of the Kinetics of Viral Inactivation – REF. NO. EPA-670/2-74-067
Metabolism of Carbamate Insecticides – REF. NO. EPA-650/1-74-002
Methyl Mercury and the Metabolic Responses of Brain Tissue – REF. NO. EPA-600/1-76-013
Microbiological Production of Geosmin – REF. NO. EPA-670/2-74-094
Mode of Action of Cyclodiene Insecticides – REF. NO. EPA-600/1-76-008
Molybdenum – A Toxicological Appraisal – REF. NO. EPA-600/1-75-004
National Environmental Specimen Bank Survey – REF. NO. EPA-600/1-76-006

CURRENT SUBJECT AREA INDEX

HEALTH EFFECTS

Normal Carboxyhemoglobin Levels of Blood Donors in the United States – REF. NO. EPA-650/1–73–004
Occupational and Environmental Pesticide Exposure Study in South Florida – REF. NO. EPA-650/1–75–002
Pesticides Epidemiological Field Studies – REF. NO. EPA-650/1–74–009
Pricing for Water Supply: Its Impact on Systems Management – REF. NO. EPA-670/1–74–001
Reactivity of Polynuclear Aromatic Hydrocarbons with O_2 and NO in the Presence of Light – REF. NO. EPA-650/1–74–010
Realistic Models for Mortality Rates and Their Estimation – REF. NO. EPA-600/1–76–015
Report on the Problem of Halogenated Air Pollutants and Stratospheric Ozone — Abstracted 600/9–75–001d — REF. NO. EPA-600/9–75–008
Role of Mixed Function Oxidases in Insecticide Action – REF. NO. EPA-600/1–76–002
Scientific and Technical Assessment Report on Cadmium — Abstracted 600/9–75–001d — REF. NO. EPA-600/6–75–003
Scientific and Technical Assessment Report on Manganese – REF. NO. EPA-600/6–75–002
Scientific and Technical Assessment Report on Particulate Polycyclic Organic Matter (PPOM) – REF. NO. EPA-600/6–75–001
Scientific and Technical Assessment Report on Vinyl Chloride and Polyvinyl Chloride – REF. NO. EPA-600/6–75–004
Selenium – REF. NO. EPA-600/1–76–014
Study of the Ecology of Pesticides – REF. NO. EPA-650/1–74–012
Study of the Effects of Low Levels of Carbon Monoxide Upon Humans Performing Driving Tasks – REF. NO. EPA-650/1–74–006
Study of the Social and Economic Impact of Odors – Phase III – REF. NO. EPA-650/5–73–001
Survey of Corrosion Products in the Seattle Water Department Tolt Distribution — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–036
Synergistic Effect of Polonium-210 and Cigarette Smoke in Rats — Abstracted 600/9–75–001b — REF. NO. EPA-680/1–75–001
Toxicology of Metals – Volume I – REF. NO. EPA-600/1–76–018
Trace Substances and Tobacco Smoke in Interaction with Nitrogen Oxides: Biological Effects – REF. NO. EPA-600/1–76–021
Training Manual for Teratology – REF. NO. EPA-650/1–73–001
Use of Leucocyte Metabolism as a Health Effects Indicator – REF. NO. EPA-650/1–74–013
Use of Panelist as Substitutes for Taxicab Drivers in Carbon Monoxide Exposure – REF. NO. EPA-650/1–74–001
Vapor-Phase Organic Pollutants – Volatile Hydrocarbons and Oxidation Products — Abstracted 600/9–75–001d — REF. NO. EPA-600/1–75–005
Virus-In-Water Study of Finished Water from Six Communities — Abstracted 600/9–75–001d — REF. NO. EPA-600/1–75–003
World's Air Quality Management Standards: Volume 1 – The Air Quality Management Standards of the World, Including United States Federal Standards – REF. NO. EPA-650/9–75–001a
World's Air Quality Management Standards: Volume 11 – The Air Quality Management Standards of the United States – REF. NO. EPA-650/9–75–001b

ECOLOGICAL PROCESSES AND EFFECTS

Acid Hydrolysis of Cellulose in Refuse to Sugar and Its Fermentation to Alcohol – REF. NO. EPA-670/2–73–011
Acquisition and Culture of Research Fish — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–011
Acute Toxicity of Certain Pesticides to *Acartia tonsa* Dana – REF. NO. EPA-600/3–76–033
Acute Toxicity of Selected Toxicants to Six Species of Fish – REF. NO. EPA-600/3–76–008
Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input – REF. NO. EPA-600/3–75–003a
Adoption of Gausain Plume Model to Incorporate Multiple Station Data Input – Appendices – REF. NO. EPA-600/3–75–003b
Aerosol Formation from Gas-Phase Reactions of Ozone and Olefin in the Presence of Sulfur Dioxide – REF. NO. EPA-650/4–74–034
Air Pollution Effects on Catastrophic Failure of Metals – REF. NO. EPA-650/3–74–009
Americium – Its Behavior in Soil and Plant Systems – REF. NO. EPA-600/3–76–005
An Investigation of Ion Removed From Water and Wastewater – REF. NO. EPA-660/3–74–022
Analysis of the Abandoned Automobile Problem – REF. NO. EPA-670/2–73–013
Analysis of the Composition of the Atmosphere in the Los Angeles Basin – REF. NO. EPA-650/2–74–105
Analysis of the Current Impact of Plastic Refuse Disposal Upon the Environment — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–083
Analysis of the Dynamics of DDT in Marine Sediments — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–013
Analysis of Multiple Cell Mechanical Draft Cooling Towers — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–039
Analysis Models for Solid Waste Collection — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–026a
Analysis Models for Solid Waste Collection — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–026b
Annual Catalyst Research Program Report Appendices, Volume I — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010b
Annual Catalyst Research Program Report Appendices, Volume II — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010c
Annual Catalyst Research Program Report Appendices, Volume III — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010d
Annual Catalyst Research Program Report Appendices, Volume IV — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010e
Annual Catalyst Research Program Report Appendices, Volume IX — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010j
Annual Catalyst Research Program Report Appendices, Volume V — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010f
Annual Catalyst Research Program Report Appendices, Volume VI — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010g
Annual Catalyst Research Program Report Appendices, Volume VII — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010h
Annual Catalyst Research Program Report Appendices, Volume VIII — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010i
Annual Catalyst Research Program Report—Summary — Abstracted 600/9–75–001d — REF. NO. EPA-600/3–75–010a
Application of Repro-Modeling to the Analysis of a Photochemical Air Pollution Model – REF. NO. EPA-650/4–74–001
Applications of Growth and Sorption Algal Assays – REF. NO. EPA-660/3–73–023

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Assessment of Wet Systems for Residential Refuse Collection: A Summary Report – REF. NO. EPA-670/2–74–068
Atmospheric Measurement of Photochemical Smog Reactions – A Preliminary Analysis – REF. NO. EPA-650/4–74–037
Atmospheric Turbulence Properties in the Lowest 300 Meters – REF. NO. EPA-600/4–75–004
Big Eddies and Mixing Processes in the Great Lakes – REF. NO. EPA-660/3–73–011
Bio-Environmental Impact of Air Pollution from Fossil Fuel Power Plants – REF. NO. EPA-660/3–74–011
Biological Control of Aquatic Vegetation – REF. NO. EPA-660/3–74–007
Biological Conversion of Animal Wastes to Nutrients – REF. NO. EPA-670/2–73–009
Biological Impact Caused by Changes on a Tropical Reef – REF. NO. EPA-600/3–76–027
Biological Models of Freshwater Communities – REF. NO. EPA-660/3–73–008
Biological Transfer of Plutonium via *in vivo* Labeled Goat's Milk – REF. NO. EPA-600/3–76–025
Biologically Allowable Thermal Pollution Limits, Parts I and II – REF. NO. EPA-660/3–74–003
Capacity of the Soil as a Natural Sink for Carbon Monoxide – REF. NO. EPA-650/2–73–043
Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. I – Summary --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–033a
Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. II – Municipal Sludges --- Abstracted 600/9–75–001b --– REF. NO. EPA-670/2–75–033b
Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. III – Utility Coal Ash --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–033c
Characterization and Utilization of Municipal and Utility Sludges and Ashes: Vol. IV – Municipal Incinerator Residues --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–033d
Chemical Characterization of Model Aerosols – REF. NO. EPA-650/3–74–011
Chemical Conversion of Solid Waste to Useful Products – REF. NO. EPA-670/2–74–027
Chemical Conversion of Wood and Cellulosic Wastes – REF. NO. EPA-670/2–74–015
Chemical/Biological Relationships Relevant to Ecological Effects of Acid Rainfall --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/3–75–032
Chemistry of Organmercurials in Aquatic Systems – REF. NO. EPA-660/3–73–012
Chena River—A Study of a Subarctic Stream --- Abstracted 600/9–75–001b --- REF. NO. EPA-660/3–75–019
Chlorinated Hydrocarbons in the Lake Ontario Ecosystem (IFYGL) --- Abstracted 600/9–75–001b --- REF. NO. EPA-660/3–75–022
Cladophora Distribution in Lake Ontario (IFYGL) --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/3–74–028
Combustion Products from the Incineration of Plastics – REF. NO. EPA-670/2–73–049
Comparative Toxicity of Sewage-Effluent Disinfection to Freshwater Aquatic Life --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/3–75–012
Compilation of Methodology Used for Measuring Pollution Parameters of Sanitary Landfill Leachate --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/3–75–011
Composted Municipal Refuse as a Soil Amendment – REF. NO. EPA-670/2–73–063
Comprehensive Technical Report on all Atmospheric Contaminants Associated with Photochemical Air Pollution – REF. NO. EPA-650/4–75–002
Conceptual Model for the Movement of Pesticides Through the Environment – REF. NO. EPA-660/3–74–024
Culturing and Ecology of Diaptomus Clavipes and Cyclops Vernalis – REF. NO. EPA-660/3–74–006
Degradation of Persistent Pesticides by Algae – REF. NO. EPA-600/3–76–022
Degradation Mechanism: Controlling the Bioaccumulation of Hazardous Materials --- Abstracted 600/9–75–001a --- REF. NO. EPA-670/2–75–005
Design and Control of Incinerators, Volume I – REF. NO. EPA-670/2–73–089A
Design and Control of Incinerators, Volume II – Appendices – REF. NO. EPA-670/2–73–089B
Design and Performance Considerations for a Pilot Process for Separating Mixed Municipal Refuse --- Abstracted 600/9–75–001c --- REF. NO. EPA-670/2–75–040
Design of the EPA Semi-Trailer Mobile Air Pollution Laboratory – REF. NO. EPA-650/4–74–017
Design Guidelines for Agricultural Soil Warming Systems Utilizing Waste Heat – REF. NO. EPA-600/3–76–026
Determination of the Formation Mechanisms and Composition of Photochemical Aerosols – REF. NO. EPA-650/3–73–002
Determination of Effect of Particulate Exhaust Emissions of Additives and Impurities in Gasoline – REF. NO. EPA-650/2–74–061
Determination of Energetic Characteristics of Urban-Rural Surfaces in the Greater St. Louis Area – REF. NO. EPA-650/4–74–007
Determination of Incinerator Operating Conditions Necessary for Safe Disposal of Pesticides – REF. NO. EPA-600/2–75–041
Development and Testing of An Air Monitoring System – REF. NO. EPA-650/2–74–019
Development of a Methodology for the Assessment of the Effects of Fuels and Additives on Control Devices – REF. NO. EPA-650/2–74–060
Development of a Selective Algaecide to Control Nuisance Algal Growth – REF. NO. EPA-660/3–73–006
Development of an Acetylene Monitor at the PPB Level – REF. NO. EPA-650/2–74–056
Development of Air Particulate Monitoring Systems – REF. NO. EPA-650/4–74–030
Development of Analytic Techniques to Measure Human Exposure to Fuel Additives – REF. NO. EPA-650/1–74–003
Development of Modeling Technique for Photochemical Air Pollution – REF. NO. EPA-650/4–74–003
Development of Sample Preparation Methods for Development of Marine Organisms – REF. NO. EPA-660/3–74–026
Development of Sampling Devices for Gaseous Atmospheric Tracers – REF. NO. EPA-650/4–74–050
Development of Urban Air Quality Simulation Model With Compatible RAPS Data – Vol. I – REF. NO. EPA-600/4–75–005a
Diffusion in Turbulent Surface Layer and the Development of an Atmospheric Wind Tunnel – REF. NO. EPA-650/4–74–041
Dispersal Processes in Lake Huron – REF. NO. EPA-660/2–74–082
Dispersion in Hydrologic and Coastal Environments – REF. NO. EPA-660/3–73–010

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Dispersion From Pall Pack – REF. NO. EPA-600/4-75-006
Dynamic Behavior of Vinyl Chloride in Aquatic Ecosystems – REF. NO. EPA-600/3-76-001
Dynamic Water Quality Forecasting and Management – REF. NO. EPA-660/3-73-009
Dynamics and Diffusion in the Great Lakes – REF. NO. EPA-660/2-74-083
Early Life History and Feeding of Young Mountain Whitefish – REF. NO. EPA-660/3-73-019
Economic Analysis of the Processing and Disposal of Refuse Sludges – REF. NO. EPA-670/2-74-037
Effect of Fuel Additives Study – REF. NO. EPA-650/2-74-096
Effect of Gasoline Additives on Gaseous Emissions – REF. NO. EPA-650/2-75-014
Effect of Gasoline Additives on Gaseous Emissions, Part II – REF. NO. EPA-600/2-76-026
Effect of Geographical Variation on Performance of Recirculating Cooling Ponds – REF. NO. EPA-660/2-74-085
Effect of Mechanical Cooling Devices on Ambient Salt Concentration – REF. NO. EPA-600/3-76-034
Effect of Meteorological Variables on Temperature Changes in Flowing Streams --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-002
Effect of Mirex and Carbofuran on Estuarine Microorganisms --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-75-024
Effect of Phosphorus Removal Processes on Algal Growth – REF. NO. EPA-660/3-73-015
Effect of Processing Poultry Manure on Disease Agents – REF. NO. EPA-670/2-73-041
Effects of Air Pollutants on Textile Fibers and Dyes – REF. NO. EPA-650/3-74-008
Effects of Atmospheric Aerosols on Infrared Irradiance at the Earth's Surface in a Non-Urban Environment – REF. NO. EPA-650/4-75-017
Effects of Chlorine and Sulfite Reduction on Lake Michigan Invertebrates – REF. NO. EPA-600/3-76-036
Effects of Crude Oil and Some of Its Components on Young Coho and Sockeye Salmon – REF. NO. EPA-660/3-73-018
Effects of Forest Fires on Water Quality in Interior Alaska --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-75-020
Effects of Gaseous Pollutants on Materials—A Chamber Study – REF. NO. EPA-600/3-76-015
Effects of Mirex and Methoxychlor on Striped Mullet, Mugil cephalus L. --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-015
Effects of Mirex, Methoxychlor, and Malathion on Development of Crabs – REF. NO. EPA-600/3-76-007
Effects of Ozone on Nitrogen Fixation in Ladino Clover – REF. NO. EPA-600/3-76-031
Effects of Protozoa on the Fate of Particulate Carbon – REF. NO. EPA-660/3-73-007
Effects of Sulfur Dioxide and/or Ozone on Several Oat Varieties – 1975 Annual Report – REF. NO. EPA-600/3-76-032
Effects of Temperature on Diseases of Salmonid Fishes – REF. NO. EPA-660/3-73-020
Effects of Water Pollution Controls on Solid Waste Generation, 1971 to 1985: Executive Summary --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-095a
Environmental Assessment of Future Disposal Methods for Plastics in Municipal Solid Waste --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-058
Environmental Chamber Studies of Atmospheric Aerosols – REF. NO. EPA 650/4-74-009
Environmental Guidelines for Development Roads in the Subarctic – REF. NO. EPA-660/3-74-009
Environmental Requirements of Selected Estuarine Ciliated Protozoa --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-74-031
Environmental Studies of an Arctic Estuarine System --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-026
Environmental Trace Materials: Computer Coupled Radioactivation Analysis – REF. NO. EPA-600/3-75-015
Estimating Nutrient Loadings of Lakes from Non-Point Sources – REF. NO. EPA-660/3-74-020
Eutrophication of Lake Tahoe Emphasizing Water Quality – REF. NO. EPA-660/3-74-034
Eutrophication of Surface Waters---Lake Tahoe's Indian Creek Reservoir --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-003
Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase I – REF. NO. EPA 650/4-75-018a
Evaluation of the Multiple Source Gaussian Plume Diffusion Model – Phase II – REF. NO. EPA-650/4-75-018b
Evaluation of Hazardous Wastes Emplacement in Mined Openings – REF. NO. EPA-600/2-75-040
Evaluation of Health Hazards Associated With Solid Waste Sewage Sludge Mixtures --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-023
Evaluation of Mathematical Models for Temperature Prediction in Deep Reservoirs --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-038
Experimental High Ash Papermill Sludge Landfill – First Annual Report --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-076a
Experimental High Ash Papermill Sludge Landfill – Second Annual Report --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-076b
Exploratory Study of Factors Affecting Aerosol Formation – REF. NO. EPA-650/3-75-002
Fabrication of Monitoring System for Determining Mass and Composition of Aerosol as a Function of Time – REF. NO. EPA-650/2-75-048
Fabrication of Single Cell Protein From Cellulosic Wastes --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-032
Fate of Nitrogen Oxides in the Atmosphere – REF. NO. EPA-600/3-76-030
Fate of Select Pesticides in the Aquatic Environment – REF. NO. EPA-660/3-74-025
Feasibility of Hydraulic Transport and Treatment of Ground Household Refuse Through Sewers – REF. NO. EPA-670/2-74-019
Feasibility of Hydraulic Transport of Ground Household Refuse Through Sewer Appurtenances – REF. NO. EPA-670/2-74-021
Feasibility of Metrac System for Regional Air Pollution Study – REF. NO. EPA-650/4-74-051
Feasibility Study of Use of Molten Salt Technology for Pyrolysis of Solid Waste --- Abstracted 600/9-75-001d --- REF. NO. EPA-670/2-75-014
First Annual Progress Report on a Study of Corrosion in Municipal Incinerators – REF. NO. EPA-670/2-73-032
First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix B – Optimal Routing of Solid Waste Collection Vehicles --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-035b
First Annual Report: Routing of Solid Waste Collection Vehicles and Appendix A – A Linear Programming Approach for the Traveling Salesman Problem --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-035a
First Annual Reports of EPA Grants Funded for IFYGL – REF. NO. EPA-660/3-73-021

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Fisheries and Energy Production: A Symposium — Abstracted 600/9-75-001a — REF. NO. EPA-600/3-75-001
Flow Establishment and Initial Entrainment of Heated Water Surface Jets — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-014
Forecast of the Effects of Air and Water Controls of Solid Waste Generation — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-095b
Formation of Aerosols in a Photochemical Fest Row Reactor – REF. NO. EPA-650/3-75-004
Future Dredging Quantities in the Great Lakes — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-74-029
Geochemical Interactions of Heavy Metals in Southeastern Salt Marsh Environments – REF. NO. EPA-600/3-76-023
Ground Water Contamination in the Northeast States – REF. NO. EPA-660/2-74-056
Ground-Water Pollution Problems in the Northwestern United States — Abstracted 600/9-75-001b — REF. NO. EPA-660/3-75-018
Haze Formation: It's Nature and Origin – 1973 – REF. NO. EPA-650/3-74-002
Haze Formation: Its Nature and Origin – 1975 – REF. NO. EPA-650/3-75-010
Heavy Metal Accumulation in Soil and Vegetation From Smelter Emissions – REF. NO. EPA-660/3-74-012
Herbicide Toxicity in Mangroves – REF. NO. EPA-600/3-76-004
High-Temperature Vortex Incinerator — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-025
Highway Air Pollution Measurement Program Using Sulfur Hexafluoride Tracer Gas – REF. NO. EPA-650/4-74-043
Hospital Solid Waste Disposal in Community Facilities – REF. NO. EPA-670/2-73-048
Impact of the Use of Microorganisms on the Aquatic Environment — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-001
Improving the Statistical Reliability of Stream Heat Assimilation Prediction — Abstracted 600/9-75-001c — REF. NO. EPA-660/3-75-037
Incineration of Bulky Refuse Without Prior Shredding – REF. NO. EPA-670/2-73-023
Incineration of Plastics Found in Municipal Wastes – REF. NO. EPA-670/2-73-087
Industrial Chemicals Solid Waste Generation — The Significance of Process Resource Recovery, and Improved Disposal – REF. MO. EPA-670/2-74-078
Industrial Solid Waste Classification Systems — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-024
Infrared Spectral Sensor for Refuse Sorting – REF. NO. EPA-670/2-74-031
Inputs of Phosphorus from Precipitation to Lake Michigan — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-005
Invariant Modeling of Turbulence and Diffusion in the Planetary Boundary Layer – REF. NO. EPA-650/4-74-035
Investigation of Corrosion Deposition Phenomena on Gas Turbine Blades – REF. NO. EPA-670/2-73-006
Investigation of Gas Phase Ozonolysis Reactions – REF. NO. EPA-600/3-76-024
Isotopic Composition of Carbon Monoxide in St. Louis, Missouri Area – REF. NO. EPA-600/3-76-010
Laboratory and Numerical Simulation of Plume Dispersion in Stably Stratified Flow Over Complex Terrain – REF. NO. EPA-650/4-74-044
Laboratory Analyses of Atmospheric Hydrocarbon – California South Coast Air Basin (Los Angeles Air Quality Control Region) August – November 1973 – REF. NO. EPA-650/4-74-052
Lake Classification — A Trophic Characterization of Wisconsin Lakes — Abstracted 600/9-75-001c — REF. NO. EPA-660/3-75-033
Lidar Studies of Stack Plumes in Rural and Urban Environments – REF. NO. EPA-650/4-73-002
Limited SO_2 and NO_x Measurements in St. Louis, 1974: Volume I – Plume Tracking by Correlation Spectroscopy – REF. NO. EPA-650/2-75-005a
Limited SO_2 and NO_x Measurements in St. Louis, 1974: Volume II, Longline Ambient SO_2 Monitor and Variability of SO_2 and NO_x – REF. NO. EPA-650/2-75-005b
Limnological Investigation of the Muskegon County, Michigan, Wastewater Storage Lagoons—Phase One — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-009
Limnological Studies of Flat-head, Montana: A Status Report – REF. NO. EPA-660/3-74-023
Literature Search and Analysis of Information Regarding Sources, Uses, Production, Consumption, Reported Medical Cases and Toxicology of Platinum and Palladium – REF. NO. EPA-650/1-74-008
Low Winter Dissolved Oxygen in Some Alaskan Rivers – REF. NO. EPA-660/3-74-008
Marine Algal Assay Procedure Bottle Test — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-008
Mathematical Model for Barged Ocean Disposal of Wastes – REF. NO. EPA-660/2-73-029
Mathematical Modeling of Phytoplankton in Lake Ontario — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-005
Mathematical Modeling of Simulated Photochemical Smog – REF. NO. EPA-650/4-75-026
Mathematical Simulation of Atmospheric Photochemical Reactions: Model Development, Validation, and Application – REF. NO. EPA-650/4-74-011
Mathematical Simulation of Smog Chamber Photo-Chemical Experiments – REF. NO. EPA-650/4-74-040
Measures of Effectiveness for Refuse Storage, Collection, and Transportation Practices – REF. NO. EPA-670/2-74-082
Measuring External Effects of Solid Waste Management — Abstracted 600/9-75-001b — REF. NO. EPA-600/5-75-010
Mercury in the Aquatic Systems: Metholation, OxidationReduction; in Bio Accumulation – REF. NO. EPA-660/3-74-021
Mesoscale Windfield Analysis of Los Angeles Basin – REF. NO. EPA-650/4-73-001
Metabolism of Mercury Compounds in Microorganisms — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-007
Metallurgical Upgrading of Automotive Scrap Steel – REF. NO. EPA-670/2-73-091
Meteorological Episodes of Slowest Dilution in Contiguous United States – REF. NO. EPA-650/4-74-002
Methodology for Determining the Effects of Fuels and Additives on Atmospheric Visibility – REF. NO. EPA-650/2-75-068
Methodology for Determining Fuel Effects on Diesel Particulate Emissions – REF. NO. EPA-650/2-75-056
Methodology for Inventorying Hydrocarbons – REF. NO. EPA-600/4-76-013
Methodology for Treating Large Localized Emissions of Reactive Pollutants – REF. NO. EPA-650/4-74-006
Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-75-009
Methylation of Mercury in a Terrestrial Environment — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-014

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Microbial Degradation and Accumulation of Pesticides in Aquatic Systems – REF. NO. EPA 660/3–75–007
Microbial-Malathion Interaction in Artificial Salt-Marsh Ecosystems: Effects and Degradation — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–035
Mobile Lidar Study of the Los Angeles Mixing Layer – REF. NO. EPA-600/4–76–009
Model Verification – Aircraft Emissions Impact on Air Quality – REF. NO. EPA-650/4–74–049
Modeling of the Effects of Pollutants and Dispersion in Urban Atmospheres – REF. NO. EPA-600/4–76–002
Modeling Dynamics of Biological and Chemical Components of Aquatic Ecosystems — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–012
Modifications to the Executive Computer Program for Steady-State Simulation of Wastewater Treatment Facilities – REF. NO. EPA-670/2–74–066
Molecular Modulation Spectrometry for Observation of Free Radicals – REF. NO. EPA-650/4–74–004
Municipal Waste Disposal by Shipborne Incineration and Sea-Disposal of Residues – REF. NO. EPA-670/2–73–017
Negatively Buoyant Jets in a Cross Flow – REF. NO. EPA-660/2–73–012
Nitrite-Accelerated Photochemical Degradation of Cellulose as a Pretreatment for Microbiological Conversion to Protein – REF. NO. EPA-670/2–73–052
Nitrogen in the Subsurface Environment — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–030
Nitrogen Sources and Cycling in Natural Waters – REF. NO. EPA-660/3–73–002
Numerical Models of Lake Currents – REF. NO. EPA-600/3–76–020
Nutrient Inactivation As A Lake Restoration Procedure — I. Laboratory Investigations – REF. NO. EPA-660/3–74–032
Nutritional Ecology of Nuisance Aquatic Plants — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–027
NO_2 Actinometer for Field Use – REF. NO. EPA-650/4–74–036
NTA and Mercury in Artificial Stream Systems – REF. NO. EPA-660/3–73–025
Optimization of Air Pollution Measurement Locations – REF. NO. EPA-650/4–75–005
Organic Compounds Entering Groundwater from a Landfill – REF. NO. EPA-660/2–74–077
Organic Nutrient Factors Effecting Algal Growths – REF. NO. EPA-660/3–73–003
Outdoor Smog Chamber Studies: Effect of Hydrocarbon Reduction on Nitrogen Dioxide – REF. NO. EPA-650/3–75–011
Oxidation of Halocarbons – REF. NO. EPA-650/3–75–008
Oxidation of Organic Matter in Sediments – REF. NO. EPA-660/3–73–005
Particulate Emissions from Prototype Catalyst Cars – REF. NO. EPA 650/2–75–054
Pesticides in the Illinois Waters of Lake Michigan – REF. NO. EPA-660/3–74–002
Petroleum Weathering: Some Pathways, Fate and Disposition on Marine Waters – REF. NO. EPA-660/3–73–013
Pharmacokinetics of Toxic Elements in Rainbow Trout – REF. NO. EPA-660/3–74–027
Phosphorus Uptake and Release by Lake Ontario Sediments — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–006
Photochemical Oxidants in the Ambient Air of the United States – REF. NO. EPA-600/3–76–017
Photochemical Oxidation of Kraft Air Pollutants – REF. NO. EPA-650/3–75–005
Physical, Chemical and Microbiological Methods of Solid Waste Testing – REF. NO. EPA-670/2–73–001
Physical, Chemical and Microbiological Methods of Solid Waste Testing: Four Additional Procedures – REF. NO. EPA-670/2–74–007
Phytoplankton Composition and Abundance in Lake Ontario During IFYGL — Abstracted 600/9–75–001a — REF. NO. EPA-660/3–75–004
Plume Temperature Measurements of Shallow Submerged Model Discharges With Current – REF. NO. EPA-660/2–73–001
Pneumo-Slurry Pipeline Collection and Removal of Municipal Solid Waste – REF. NO. EPA-670/2–73–072
Pollution Effects on Adult Steelhead Migration in the Snake River – REF. NO. EPA-660/3–73–017
Poultry Manure Disposal by Plow-Furrow-Cover – REF. NO. EPA-670/2–73–085
Precipitation Scavenging of Inorganic Pollutants from Metropolitan Sources – REF. NO. EPA-650/3–74–005
Preliminary Assessment of Wet Systems for Residential Refuse Collection – REF. NO. EPA-670/2–74–065
Preliminary Design of a Household Refuse Grinder – REF. NO. EPA-670/2–74–020
Preparation and Evaluation of Activated Carbon Produced from Municipal Refuse – REF. NO. EPA-670/2–73–010
Preventing Landfill Leachate Contamination of Water – REF. NO. EPA-670/2–73–021
Problems and Opportunities in Management of Combustible Solid Wastes – REF. NO. EPA-670/2–73–056
Proceedings of the Solvent Reactivity Conference – REF. NO. EPA-650/3–74–010
Proceedings of Symposium on Statistical Aspects of Air Quality – REF. NO. EPA-650/4–74–038
Proceedings: Biostimulation-Nutrient Assessment Workshop — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–034
Promising Technologies for Treating Hazardous Waste – REF. NO. EPA 670/2–74–088
Protocol for Evaluating the Nitrogen Status of Lake Sediments – REF. NO. EPA-660/3–73–024
Protocol to Characterize Gaseous Emissions as a Function of Fuel and Additive Composition — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–048
Public Attitudes Toward Hazardous Waste Disposal Facilities – REF. NO. EPA-670/2–73–086
Puget Sound Oceanographic Field Studies Data Report, Everett, BELLINGHAM, Port Angeles, 1962–63 – REF. NO. EPA-660/3–73–014
Pyrolysis of Solid Municipal Wastes – REF. NO. EPA-670/2–73–039
Radiolytic Hydrolysis of Cellulose – REF. NO. EPA-670/2–73–030
Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume I – Technical Discussion – REF. NO. EPA-670/2–74–024A
Raw Materials Transportation Costs and Their Influence on the Use of Wastepaper and Scrap Iron and Steel, Volume II – Appendices – REF. NO. EPA-670/2–74–024B
Recirculating Waste System for Swine Units – REF. NO. EPA-670/2–73–025

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Reclamation of Energy from Organic Waste – REF. NO. EPA-670/2-74-016
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I – Summary Report – REF. NO. EPA-670/2-73-053A
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume II – Toxicologic Summary – REF. NO. EPA-670/2-73-053B
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume III – Disposal Process Discriptions: Ultimate Disposal Incineration, and Pyrolysis Processes – REF. NO. EPA-670/2-73-053C
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volum IV – Disposal Process Descriptions: Biological and Miscellaneous Waste Treatment Processes – REF. NO. EPA-670/2-73-053D
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume V – National Disposal Site Candidate Waste Stream Constituent Profile Reports – Pesticides and Cyanide Compounds – REF. NO. EPA-670/2-73-053E
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VI – National Disposal Site Candidate Waste Stream Constituent Profile Report – Mercury, Arsenic, Chromium and Cadmium Compounds – REF. NO. EPA-670/2-73-053F
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Propellants, Explosives, and Chemical Warfare Materiel – REF. NO. EPA-670/2-73-053G
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume VIII – National Disposal Site Candidate Waste Stream Constituent Profile Report – Miscellaneous Inorganic and Organic Compounds – REF. NO. EPA-670/2-73-053H
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume IX – National Disposal Site Candidate Waste Stream Constituent Profile Report – Radioactive Materials – REF. NO. EPA-670/2-73-053I
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume X – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds – REF. NO. EPA-670/2-73-053J
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XI – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Organic Compounds – REF. NO. EPA-670/2-73-053K
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds – REF. NO. EPA-670/2-73-053L
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIII – Industrial and Municipal Disposal Candidate Waste Stream Constituent Profile Reports – Inorganic Compounds – REF. NO. EPA-670/2-73-053M
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XIV – Summary of Waste Origins, Forms and Quantities – REF. NO. EPA-670/2-73-053N
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XV – Research and Development Plans – REF. NO. EPA-670/2-73-053O
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume XVI – References – REF. NO. EPA-670/2-73-053P
Recommended Methods of Reduction, Neutralization, Recovery or Disposal of Hazardous Waste, Volume I thru Volume XVI – REF. NO. EPA-670/2-73-053A-P
Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 1 – REF. NO. EPA-600/3-76-011a
Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 2 – REF. NO. EPA-600/3-76-011b
Regional Air Pollution Study (RAPS) Emission Inventory Handbook – Volume 3 – REF. NO. EPA-600/3-76-011c
Regional Air Pollution Study Program – Final Report – REF. NO. EPA-650/3-75-009
Regional Air Pollution Study: Expeditionary Research Program, Summer 1975 – REF. NO. EPA-600/3-76-016
Relationship Between Circumsolar Sky Brightness and Atmospheric Aerosols – REF. NO. EPA-650/4-75-012
Research and Development of a Selective Algaecide to Control Nuisance Algal Growth-Phase III – REF. NO. EPA-660/3-74-019
Results of Ocean Diffusion and Biological Studies of the Hollywood, Florida, Ocean Outfall – REF. NO. EPA-600/3-76-003
Review of the Physiological Impact of Mercurials – REF. NO. EPA-660/3-73-022
Reviewing Environmental Impact Statements – Power Plant Cooling Systems, Engineering Aspects – REF. NO. EPA-660/2-73-016
Role of Solid-Gas Interactions in Air Pollution – REF. NO. EPA-650/3-74-007
Routing of Solid Waste Collection Vehicles, Final Report: Appendix A – Manual for Use of the Computer Codes — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-036a
Routing of Solid Waste Collection Vehicles: Appendix B – A Heuristic Solution to the M-Postmen's Problem — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-036b
Ruthenium: Its Behavior in Plant and Soil Systems – REF. NO. EPA-600/3-76-019
Saline Groundwater Produced with Oil and Gas – REF. NO. EPA-660/2-74-010
Salt Water Detection in the Cimarron Terrace, Oklahoma — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-74-033
Sanitary Landfill Stabilization with Leachate Recycle and Residual Treatment — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-043
Scrap Rubber Tire Utilization in Road Dressings – REF. NO. EPA 670/2-74-014
Second Annotated Bibliography of Biological Effects of Metals in Aquatic Environments — Abstracted 600/9-75-001d — REF. NO. EPA-600/3-75-008
Sediments and Sediment-Water Nutrient Interchanges in Upper Klamath Lake, Oregon – REF. NO. EPA-660/3-74-015
Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume I – REF. NO. EPA-650/4-74-045a
Select Research Group in Air Pollution Meteorology, Second Annual Progress Report Volume II – REF. NO. EPA-650/4-74-045b
Significance and Control of Waste Water Floatables in Coastal Waters – REF. NO. EPA-660/3-74-016
Silt Removal From a Lake Bottom — Abstracted 600/9-75-001a — REF. NO. EPA-660/3-74-017

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Single-Cell Protein From Waste Cellulose – REF. NO. EPA-670/2-73-095
Smog Chamber Conference Proceedings – REF. NO. EPA-600/3-76-029
Solid Waste Conversion: Cellulose Liquefaction --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-031
Some Effects of Cadmium on Coniferous Forest Soil/Litter Microcosms --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-036
Some Topics Relating to Modeling of Dispersion in Boundary Layer – REF. NO. EPA-650/4-75-015
Sources and Natural Removal Processes for Some Atmospheric Pollutants – REF. NO. EPA-650/4-74-032
Specifications for Materials Recovered from Municipal Refuse --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-034
Spectral Modeling of Atmospheric Flows and Turbulent Diffusion – REF. NO. EPA-600/4-76-007
Spectroscopic Study of California Smog – REF. NO. EPA-650/4-75-006
Statistical Prediction of Equilibrium Temperature From Standard Meteorological Data Bases – REF. NO. EPA-660/2-73-003
Statistical Questions Relating to the Validation of Air Quality Simulation Models – REF. NO. EPA-650/4-75-010
Structure and Reactivity of Adsorbed Oxides of Sulfur – REF. NO. EPA-650/3-74-006
Studies of Pollutant Concentration Frequency Distributions – REF. NO. EPA-650/4-75-004
Studies of Small Metallic Particles Formed by Homogeneous Nucleation: Light Scattering and Electron Microscopy – REF. NO. EPA-650/3-75-006
Studies on Effects of Thermal Pollution in Biscayne Bay in Florida – REF. NO. EPA-660/3-74-014
Studies on Modifications of Solid Industrial Wastes – REF. NO. EPA-670/2-73-065
Studies on Southeastern Aquatic Insects – REF. NO. EPA-660/3-73-016
Studies to Determine Methods for Culturing Three Freshwater Zooplankton Species --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-75-010
Study of Aerosol Formation in Photochemical Air Pollution – REF. NO. EPA-650/3-75-007
Study of Corrosion in Municipal Incinerators Versus Refuse Composition --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-084
Study of Factors Affecting Reactions in Environmental Chambers Final Report on Phase II – REF. NO. EPA-650/3-74-004a
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume I – REF. NO. EPA-670/2-73-014
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume II – REF. NO. EPA-670/2-73-015
Study of Hazardous Waste Materials, Hazardous Effects and Disposal Methods, Volume III – REF. NO. EPA-670/2-73-016
Study of Incinerator Residue Analysis of Water Soluble Components – REF. NO. EPA-670/2-73-057
Study of Institutional Solid Wastes – REF. NO. EPA-670/2-73-083
Study of Pan-Type Compounds and Related Precursors – REF. NO. EPA-600/3-76-012
Study on Technical and Economic Feasibility of a Hydrogenation Process for Utilization of Waste Rubber – REF. NO. EPA-670/2-73-066
Subsurface Biological Activity in Relation to Ground Water Pollution – REF. NO. EPA-660/2-73-014
Sulfur Content of Douglas Fir Foliage Near a Paper Mill – REF. NO. EPA-660/3-74-018
Summation of Conditions and Investigations for the Complete Combustion of Organic Pesticides --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-044
Survey of Marine Communities in Panama and Experiments with Oil – REF. NO. EPA-600/3-76-028
Survival of Pathogens in Animal Manure Disposal – REF. NO. EPA-670/2-73-051
Temperature Effects on Eggs and Fry of Percoid Fishes --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-75-017
Temperature, Infectious Diseases and the Immune Response in Salmonid Fish – REF. NO. EPA-600/3-76-021
Theoretical Model and Solubility Characteristics of Aroclor R 1254 in Water: Problems Associated with Low-Solubility Compounds in Aquatic Toxicity Test --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/3-74-013
Thermophilic Aerobic Digestion of Organic Solid Wastes – REF. NO. EPA-670/2-73-061
Tidal Flats in Estuarine Water Quality Analysis --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/3-75-025
Toxaphene Effects on Reproduction, Growth, and Mortality of Brook Trout – REF. NO. EPA-600/3-75-013
Toxicity of Chlorinated Power Plant Condenser Cooling Waters to Fish – REF. NO. EPA-600/3-76-009
Toxicity of Selected Pesticides to the Bay Mussel (Mytilus edulis) --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/3-75-016
Transport of Oxidant Beyond Urban Areas – REF. NO. EPA-600/3-76-018
Travels of Airborne Pollen – REF. NO. EPA-650/3-75-003
Tritium Accumulation in Lettuce Fumigated with Elemental Tritium – REF. NO. EPA-600/3-76-006
Turbulence Modeling and Its Application to Atmospheric Diffusion. Part I: Recent Program Development, Verification, and Application --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-016a
Turbulence Modeling and Its Application to Atmospheric Diffusion. Part II: Critical Review of the Use of Invariant Modeling --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-016b
Turbulent Diffusion in Liquid Jets: Final Report – REF. NO. EPA-660/3-74-004b
Turbulent Diffusion in Liquid Jets: Part I – REF. NO. EPA-660/3-74-004a
Urban Street Cleaning --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-030
Use of Domestic Waste Glass for Urban Paving – REF. NO. EPA-670/2-73-038
Use of Domestic Waste Glass for Urban Paving – Summary Report --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-053
User's Guide for Hiway, A Highway Air Pollution – REF. NO. EPA-650/4-74-008
User's Manual for the APRAC-1A Urban Diffusion Model Computer Program – REF. NO. EPA-650/3-73-001
Utilization of Bark Waste – REF. NO. EPA-670/2-73-005
Utilization of Fibrous Wastes as Sources of Nutrients – REF. NO. EPA-670/2-73-090
Water Quality Requirements of Aquatic Insects – REF. NO. EPA-660/3-73-004
Weed Harvest and Lake Nutrient Dynamics – REF. NO. EPA-660/3-73-001
Wet Systems for Residential Refuse Collection: A Case Study for Springfield, Massachusetts – REF. NO. EPA-670/2-74-038
Wind Tunnel Tests of Negatively Buoyant Plumes – REF. NO. EPA-650/3-74-003

CURRENT SUBJECT AREA INDEX

ECOLOGICAL PROCESSES AND EFFECTS

Wood Waste Reuse in Controlled Release Pesticides – REF. NO. EPA-670/2–73–034
Zooplankton Production in Lake Ontario as Influenced by Environmental Perturbations — Abstracted 600/9–75–001c — REF. NO. EPA-660/3–75–021

MUNICIPAL POLLUTION CONTROL

Actinomycetes of Sewage-Treatment Plants — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–031
Activated Silica in Wastewater Coagulation – REF. NO. EPA-670/2–74–047
Activated Sludge Process Using Pure Oxygen – REF. NO. EPA-670/2–73–042
Activated Sludge Treatment Systems With Oxygen – REF. NO. EPA-670/2–73–073
Adsorption from Aqueous Solution – REF. NO. EPA-670/2–74–012
Advanced Automatic Control Strategies for the Activated Sludge Treatment Process — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–039
Aerobic-Stabilization of Waste Activated Sludge – An Experimental Investigation — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–035
Alternative Septage Treatment Method: Lime Stabilization/ Sand-Bed Dewatering — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–036
Alum Addition to Activated Sludge With Tertiary Solids Removal – REF. NO. EPA-670/2–73–037
Ammonia Nitrogen Removal By Breakpoint Chlorination – REF. NO. EPA-670/2–73–058
Apollo County Park Wastewater Reclamation Project – Antelope Valley, California – REF. NO. EPA-600/2–76–022
Assessment and Development Plan for Monitoring of Organics in Storm Flows — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–087
Assessment of Automatic Sewer Flow Samplers – 1975 – REF. NO. EPA-600/2–75–065
Automatic Organic Monitoring System for Storm and Combined Sewers — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–067
Bacterial Zoogloea Formation – REF. NO. EPA-670/2–74–018
Batch Disinfection of Treated Wastewater With Chlorine at Less Than 1 Degree C – REF. NO. EPA-660/2–73–005
Bench-Scale High-Rate Disinfection of Combined Sewer Overflows With Chlorine and Chlorine Dioxide — Abstracted 600/9–75–001b — – REF. NO. EPA-670/2–75–021
Bioflocculation and the Accumulation of Chemicals By Floc-Forming Organisms — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–032
Biological Treatment of Combined Sewer Overflow at Kenosha, Wisconsin — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–019
BOD, Solids and Nutrient Removal By Foam Flotation – REF. NO. EPA-670/2–73–096
Carbon, Nitrogen, and Phosphorus Removal in Staged NitrificationDenitrification Treatment — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–052
Characterization and Treatment of Combined Sewer Overflows — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–054
Characterization and Treatment of Urban Land Runoff — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–096
Chemical Impact of Snow Dumping Practices — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–74–086
Combined Sewer Overflow Seminar Papers — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–73–077
Combined Sewer Overflow Treatment by the Rotating Biological Contactor Process – REF. NO. EPA-670/2–74–050
Computer Management of a Combined Sewer System – REF. NO. EPA-670/2–74–022
Conference on Recycling Treated Municipal Wastewater Through Forest and Cropland – REF. NO. EPA-660/2–74–003
Contributions of Urban Roadway Usage to Water Pollution — Abstracted 600/9–75–001b — REF. NO. EPA-600/2–75–004
Control Schemes for the Activated-Sludge Process – REF. NO. EPA-670/2–74–069
Controlling Sulfides in Sanitary Sewers Using Air and Oxygen — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–060
Cost of Dissolved Air Flotation Thickening of Waste Activated Sludge at Municipal Sewage Treatment Plants – REF. NO. EPA-670/2–74–011
Cost-Effective Design Based Upon Field Derived Parameters – REF. NO. EPA-670/2–74–062
Costs of Filter Pressing Domestic Sewage Sludges – REF. NO. EPA-670/2–74–006
Costs of Hauling and Land Spreading of Domestic Sewage Treatment Plant Sludge – REF. NO. EPA-670/2–74–010
Countermeasures for Pollution From Overflow – The State of the Art — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–090
Cross-flow Filtration in Physical-Chemical Treatment of Municipal Sewage Effluents – REF. NO. EPA-600/2–76–025
Demineralization of Wastewater by Electrodialysis — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–047
Demonstrated Technology and Research Needs for Reuse of Municipal Wastewater — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–038
Demonstration of a High-Rate Activated Sludge System — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–037
Demonstration of Waste Flow Reduction from Households – REF. NO. EPA-670/2–74–071
Design and Simulation of Equalization Basins – REF. NO. EPA-670/2–73–046
Design and Testing of a Prototype Automatic Sewer Sampling System – REF. NO. EPA-600/2–76–006
Detention Tank for Combined Sewer Overflow – Milwaukee, Wisconsin, Demonstration Project – REF. NO. EPA-600/2–75–071
Development of a Monthly Technology Bulletin – REF. NO. EPA-600/2–74–005
Development of Phosphate – Free Heavy Duty Detergents – REF. NO. EPA-600/2–74–003
Disinfection of Sewage Effluents – REF. NO. EPA-670/2–73–029
Dual Functioning Swirl Combined Sewer Overflow Regulator/ Concentrator – REF. NO. EPA-670/2–73–059

CURRENT SUBJECT AREA INDEX

MUNICIPAL POLLUTION CONTROL

Economical Residential Pressure Sewer System with No Effluent – REF. NO. EPA-600/2–75–072
Effect of Carbon to Nitrogen Ratio on Activated Sludge Subsidence and Dewatering Characteristics — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–74–025
Electrochemical Carbon Regeneration – REF. NO. EPA-670/2–75–028
Enhancing Trickling Filter Plant Performance By Chemical Precipitation – REF. NO. EPA-670/2–73–060
Evaluation and Demonstration of the Capillary Suction Sludge Dewatering Device – REF. NO. EPA-670/2–74–017
Evaluation of the Bio-Disc Treatment Process for Summer Camp Application – REF. NO. EPA-670/2–73–022
Evaluation of Three Combined Sewage Overflow Treatment Alternatives — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–74–079
Extended Aeration Sewage Treatment in Cold Climate — Abstracted 600/9–75–001a — REF. NO. EPA-660/2–74–070
Fate and Effects of Trace Elements in Sewage Sludge When Applied to Agricultural Lands: A Literature Review Study – REF. NO. EPA-670/2–74–005
Feasibility of Overflow Overland Flow Treatment of Feedlot Runoff – REF. NO. EPA-660/2–74–062
Feasibility of Overland Flow for Treatment of Raw Domestic Wastewater – REF. NO. EPA-660/2–74–087
Ferric Chloride and Organic Polyelectrolytes for the Removal of Phosphorus – REF. NO. EPA-670/2–73–103
Future Direction of Urban Water Models – REF. NO. EPA-600/2–76–058
Great Lakes Water Quality — Status of Pertinent EPA Research — Abstracted 600/9–75–001a — REF. NO. EPA-660/9–74–002
Hatfield Township, Pennsylvania, Advanced Waste Treatment Plant — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–030
Helical Bend Combined Sewer Overflow Regulator – REF. NO. EPA-600/2–75–062
Hydrogen Peroxide Cures Filamentous Growth in Activated Sludge – REF. NO. EPA-670/2–73–033
Hypochlorination of Pollution Stormwater Pumpage at New Orleans – REF. NO. EPA-670/2–73–067
Hypolimnetic Flow Regimes in Lakes and Impoundments – REF. NO. EPA-660/2–74–053
Hypolimnion Aeration With Commercial Oxygen – Volume I – Dynamics of Bubble Plume – REF. NO. EPA-660/2–73–025a
Hypolimnion Aeration With Commercial Oxygen – Volume II – Bubble Plume Gas Transfer – REF. NO. EPA-660/2–73–025b
Improved Liquid-Solids Separation By An Aluminum Compound in Activated Sludge Treatment — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–039
Instream Aeration to Control Dissolved Sulfide in Sanitary Sewers – REF. NO. EPA-670/2–73–024
Interim Report of Task Force on Phosphate Removal Sludges — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–013
Interim Report on the Impact of Public Law 92–500 on Municipal Pollution Control Technology – REF. NO. EPA-600/2–76–019
Kinetic Model for Orthophosphate Reactions in Mineral Soils — Abstracted 600/9–75–001c — REF. NO. EPA-660/2–75–022
Laboratory Evaluation of a Method for Enhancing the Kinetics of Activated Sludge Treatment Plants — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–061
Laboratory Ozonation of Municipal Wastewater – REF. NO. EPA-670/2–73–075
Land Application of Sludge Effluent and Sludges: Selected Abstracts – REF. NO. EPA-660/2–74–042
Lime Disinfection of Sewage Bacteria at Low Temperature – REF. NO. EPA-660/2–73–017
Lime Stabilized Sludge: Its Stability and Effect on Agricultural Land — Abstracted 600/9–75–001a — REF. NO. EPA-670/2–75–012
Lime Use in Wastewater Treatment: Design and Cost Data — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–038
Manual for Deicer Chemical Application Practices – REF. NO. EPA-670/2–74–045
Manual for Deicing Chemical Storage and Handling – REF. NO. EPA-670/2–74–033
Mathematical Model for Aerobic Digestion – REF. NO. EPA-670/2–73–045
Mathematical Model for Post Aeration – REF. NO. EPA-670/2–73–044
Measurements of Active Biomass Concentrations in Biological Waste Treatment Processes — Abstracted 600/9–75–001c — REF. NO. EPA-600/2–75–029
Methods for Improvement of Trickling Filter Plant Performance, Part I – Mechanical and Biological Optima – REF. NO. EPA-670/2–73–047a
Microbiology of Sewage Sludge Disposal in Soil – REF. NO. EPA-670/2–74–074
Microstraining and Disinfection of Combined Sewer Overflows – Phase III – REF. NO. EPA-670/2–74–049
Multi-Purpose Combined Sewer Overflow Treatment Facility, Mount Clemens, Michigan — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–010
Municipal Water Pollution Control Abstracts for 1974 — Abstracted 600/9–75–001b — REF. NO. EPA-600/2–75–005
New Microbial Indicators of Wastewater Chlorination Efficiency – REF. NO. EPA-670/2–73–082
Nitrate and Nitrite Volatilization By Microorganisms in Laboratory Experiments – REF. NO. EPA-660/2–73–002
Nitrogen Removal By Ammonia Stripping – REF. NO. EPA-670/2–73–040
Odors Emitted From Raw and Digested Sewage Sludge – REF. NO. EPA-670/2–73–098
Off-the-Shelf Analyzers for Measuring Adenosine Triphosphate (ATP) in Activated Sludge – REF. NO. EPA-670/2–74–034
On-Line Colorimetric Analyzers for Monitoring Nitrate-Nitrite, Ammonia, Orthophosphorus and Total Hydrolyzable Phosphorus in Wastewater-Treatment Process Streams – REF. NO. EPA-670/2–74–046
Optimization and Design of an Oil/Activated Sludge Concentration Process – REF. NO. EPA-670/2–74–004
Oxygenation of Aqueous Bodies Using Liquid Oxygen-Loxination – REF. NO. EPA-670/2–74–048
Phosphate Removal in an Activated Sludge Facility – REF. NO. EPA-670/2–74–061
Physical – Chemical Treatment of Raw Material Wastewater – REF. NO. EPA-670/2–73–070
Physical and Setling Characteristics of Particulates in Storm and Sanitary Wastewaters — Abstracted 600/9–75–001b — REF. NO. EPA-670/2–75–011
Pilot – Demonstration Project for Industrial Reuse of Renovated Municipal Wastewater – REF. NO. EPA-670/2–73–064
Planned Maintenance Management System for Municipal Wastewater Treatment Plants – REF. NO. EPA-600/2–73–004
Portable Device for Measuring Wastewater Flow in Sewers – REF. NO. EPA-600/2–73–002
Rainfall-Runoff Relations on Urban and Rural Areas — Abstracted 600/9–75–001c — REF. NO. EPA-670/2–75–046

CURRENT SUBJECT AREA INDEX

MUNICIPAL POLLUTION CONTROL

Raw Sewage Coagulation and Aerobic Sludge Digestion — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-049
Relationship Between Diameter and Height for the Design of a Swirl Concentrator as a Combined Sewer Overflow Regulator – REF. NO. EPA-670/2-74-039
Renovation of Secondary Effluent for Re-use as a Water Resource – REF. NO. EPA-660/2-74-016
Replacement of Activated Sludge Secondary Clarifiers by Dynamic Straining — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-045
Research Needs for the Potable Reuse of Municipal Wastewater – REF. NO. EPA-600/9-75-007
Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent – REF. NO. EPA-670/2-74-077
Reverse Osmosis of Treated and Untreated Secondary Sewage Effluent; Appendix A-2 and Appendix A-6 — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-027
Review of Landspreading of Liquid Municipal Sewage Sludge — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-049
Role of Polyelectrolytes in Filtration Processes – REF. NO. EPA-670/2-74-032
Role of Trace Elements in Management of Nuisance Growths — Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-008
Rotating Biological Disk Wastewater Treatment Process – Pilot Plant Evaluation – REF. NO. EPA-670/2-73-027
Second U.S. – Japan Conference on Sewage Treatment Technology December 1–6, 1972 – REF. NO. EPA-670/9-74-003
Selected Abstracts for Instrumentation and Automation of Wastewater Facilities – REF. NO. EPA-670/2-73-104
Selective Nutrient Removal Secondary Effluent – REF. NO. EPA-670/2-73-076
Semi-Automatic Control of Activated Sludge Plants – State of the Technology – REF. NO. EPA-600/2-75-058
Sewer Flow Measurement – A State-of-the Art Assessment — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-027
Sewerage System Monitoring and Remote Control — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-020
Short Course Proceedings: Applications of Stormwater Management Models — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-065
Single-Stage Nitrification-Denitrification — Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-051
Sludge Conditioning Using SO_2 and Low Pressure for Production of Organic Feed Concentrate – REF. NO. EPA-670/2-73-062
Storm Water Management Model: Dissemination and User Assistance — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-041
Storm Water Management Model: User's Manual – Version II — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-017
Stream Pollution Abatement by Supplement Pumping — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-035
Study of an Integrated Power, Water and Wastewater Utility Complex – REF. NO. EPA-670/2-74-080
Study of Upflow Filter for Tertiary Treatment – REF. NO. EPA-670/2-73-074
Summary Report – Pilot Plant Studies on Dewatering Primary Digested Sludge – REF. NO. EPA-670/2-73-043
Surge Facility for Wet and Dry Weather Flow Control – REF. NO. EPA-670/2-74-075
Suspended Solids Monitor — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-002
System Alternatives in Oxygen Activated Sludge — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-008
SWIRL Concentrator as a Grit Separator Device – REF. NO. EPA-670/2-74-026
Tertiary Treatment for Phosphorus Removal at Ely, Minnesota AWT Plant, April 1973 thru March 1974 – REF. NO. EPA-600/2-76-082
Tertiary Treatment With a Controlled Ecological System – REF. NO. EPA-660/2-73-022
Treatment of Combined Sewer Overflows by Dissolved Air Flotation — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-033
Trench Incorporation of Sewage Sludge in Marginal Agricultural Land — Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-034
U-Tube Aeration – REF. NO. EPA-670/2-73-031
Ultraviolet Disinfection of Activated Sludge Effluent Discharging to Shellfish Waters – REF. NO. EPA-600/2-75-060
Upgrading Wastewater Stabilization Ponds to Meet New Discharge Standards — Abstracted 600/9-75-001a — REF. NO. EPA-670/9-75-004
Urban Stormwater Management and Technology: An Assessment – REF. NO. EPA-670/2-74-040
Urban Stormwater Management Modeling and Decision-Making — Abstracted 600/9-75-001b — REF. NO. EPA-670/2-75-022
Use of Climatic Data in Design of Soils Treatment Systems — Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-018
Utilization of Trickling Filters for Dual Treatment of Dry and Wet Weather Flows – REF. NO. EPA-670/2-73-071
Wastewater Treatment and Reuse By Land Application, Volume I – Summary – REF. NO. EPA-660/2-73-006a
Wastewater Treatment and Reuse By Land Application, Volume II – Summary – REF. NO. EPA-660/2-73-006b
Wastewater Use in the Production of Food and Fiber—Proceedings of Conference held at Oklahoma City, OK March 5–7, 1974 – REF. NO. EPA-660/2-74-041
Water Quality Control Through a Single Crop Agriculture, No. 4 — Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-026
Water Quality Effect of Diking a Shallow Arid-Region Lake — Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-007
Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia – Volume I – REF. NO. EPA-600/2-76-005a
Water Quality Simulation of Tahoe-Truckee System, NevadaCalifornia: Volume II – Appendices – REF. NO. EPA-600/2-76-005b
Water Renovation of Municipal Effluents by Reverse Osmosis — Abstracted 600/9-75-001a — REF. NO. EPA-670/2-75-009
200 MGD Activated Sludge Plant Removes Phosphorus by Pickle Liquor – REF. NO. EPA-670/2-73-050

INDUSTRIAL POLLUTION CONTROL

Activated Carbon Treatment of Unbleached Kraft Effluent for Reuse — Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-004
Activated Sludge – Bio-Disc Treatment of Distillery Wastewater – REF. NO. EPA-660/2-74-014
Air Flotation – Biological Oxidation of Synthetic Rubber and Latex Wastewater – REF. NO. EPA-660/2-73-018
Application of Exchange Resins for Treatment of Textile Dye Wastes – REF. NO. EPA-660/2-75-016
Biological Treatment of Concentrated Sugar Beet Wastes – REF. NO. EPA-660/2-74-028
Catalyzed Bio-Oxidation and Tertiary Treatment of Integrated Textile Wastewaters – REF. NO. EPA-660/2-74-039

CURRENT SUBJECT AREA INDEX

INDUSTRIAL POLLUTION CONTROL

Characterization of Waste Waters from the Ethical Pharmaceutical Industry – REF. NO. EPA-670/2–74–057

Chemical Coagulation/Mixed Media Filtration of Aerated Lagoon --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–025

Chemical/Physical and Biological Treatment of Wool Processing Wastes – REF. NO. EPA-660/2–73–036

Coliform Bacteria Growth and Control in Aerated Stabilization Basins – REF. NO. EPA-660/2–73–028

Color Characterization Before and After Lime Treatment – REF. NO. EPA-660/2–74–029

Color Removal and Sludge Disposal Process for Kraft Mill Effluents – REF. NO. EPA-660/2–74–008

Color Removal From Kraft Mill Effluents By Ultrafiltration – REF. NO. EPA-660/2–73–019

Continuous Inplant Hot Gas Blanching of Vegetables – REF. NO. EPA-660/2–74–091

Copper Recovery from Brass Mill Discharge by Cementation with Scrap Iron --- Abstracted 600/9–75–001a --- REF. NO. EPA-670/2–75–029

Cost Estimating Methodology for Once-Through Cooling Water Discharge Modifications – REF. NO. EPA-600/2–76–078

Demonstration of Thermal Water Utilization in Agriculture – REF. NO. EPA-660/2–74–011

Detection of Oil in Sewers – REF. NO. EPA-600/2–76–027

Development of a Monthly Industrial Technology Bulletin – REF. NO. EPA-600/2–74–007

Disposal and Utilization of Waste Kiln Dust From Cement Industry --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–043

Dry Caustic Heating of Clingstone Peaches on a Commercial Scale – REF. NO. EPA-660/2–74–092

Economic Assessment of Backfitting Power Plants with ClosedCycle Cooling Systems – REF. NO. EPA-600/2–76–050

Egg Breaking and Processing Waste Control and Treatment --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–019

Electrolytic Treatment of Job Shop Metal Finishing Wastewater --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–028

Elimination of Washer Slimes from the Production of Phosphate Chemicals – REF. NO. EPA-600/2–76–045

Evaluation of a Pneumatic Barrier for Oil Containment – REF. NO. EPA-600/2–76–030

Evaluation of Polymeric Clarification of Meat-Packing and Domestic Wastewaters – REF. NO. EPA-660/2–74–020

Explicit Calibration of the Pills II System – REF. NO. EPA-660/2–73–011

Final Report Deep Water Pilot Plant Treatability Study – REF. NO. EPA-660/2–73–038

Granite Industry Wastewater Treatment – REF. NO. EPA-660/2–74–040

Hyperfiltration for Renovation of Textile Finishing Plant Wastewater – REF. NO. EPA-600/2–76–060

Improvement of Treatment of Food Industry Waste – REF. NO. EPA-660/2–74–035

Industrial Water Softener Waste Brine Reclamation – REF. NO. EPA-660/2–74–007

Information Resource: Final Report Water Pollution Control in Water Utilities – REF. NO. EPA-660/2–73–020

Infrared Dry Caustic vs. Wet Caustic Peeling of White Potatoes – REF. NO. EPA-660/2–74–088

Inverted Siphons for Oil Trapping – REF. NO. EPA-600/2–76–028

Ion Exchange Process for Recovery of Chromate from Pigment Manufacturing – REF. NO. EPA-670/2–74–044

Laboratory Study of Continous Electro-oxidation of Dilute Cuanide Waste – REF. NO. EPA-670/2–74–059

Measurement of Residual Chlorine Levels in Cooling Water — Amperometric Method – REF. NO. EPA-660/2–73–039

Mercury Recovery from Contaminated Waste Waters and Sludges – REF. NO. EPA-660/2–74–086

Metallic Recovery From Waste Waters Utilizing Cementation – REF. NO. EPA-670/2–74–008

Modular Wastewater Treatment System Demonstration For the Textile Maintenance Industry – REF. NO. EPA-660/2–73–037

New Membranes for Reverse Osmosis Treatment of Metal Finishing Effluents – REF. NO. EPA-660/2–73–033

Nomographs for Thermal Pollution Control Systems – REF. NO. EPA-660/2–73–004

Optimizing a Petrochemical Waste Bio-Oxidation System Through Automation --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–021

Organic Compounds in Pulp Mill Lagoon Discharge --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–028

Paunch Manure as a Feed Supplement in Channel Catfish Farming – REF. NO. EPA-660/2–74–046

Physical-Chemical Treatment of Municipal Wastes by Recycled Magnesium Carbonate – REF. NO. EPA-660/2–74–055

Pilot Plant Optimization of Phosphoric Acid Recovery Process --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–015

Pilot Scale Treatment of Wine Stillage --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/2–75–002

Plant Scale Studies of the Magnesium Carbonate Water Treatment Process – REF. NO. EPA-660/2–75–006

Pollution Control Technology for Pesticide Formulators and Packagers --- Abstracted 600/9–75–001a --- REF. NO. EPA-660/2–74–094

Poultry Processing Wastewater Treatment and Reuses – REF. NO. EPA-660/2–74–060

Proceedings Fourth National Symposium on Food Processing Wastes – REF. NO. EPA-660/2–73–031

Proceedings: Fifth National Symposium on Food Processing Wastes – REF. NO. EPA-660/2–74–058

Process and Environmental Technology for Producing SNG and Liquid Fuels --- Abstracted 600/9–75–001b --- REF. NO. EPA-660/2–75–011

Program for Preventing and Eliminating Oil Pollution of the Buffalo River – REF. NO. EPA-600/2–76–029

Projects in the Industrial Pollution Control Division – December 1974 --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/2–75–001

Protein Production from Acid Whey VIA Fermentation – REF. NO. EPA-660/2–74–025

Radiation Treatment of High Strength Chlorinated Hydrocarbon Wastes --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–017

Reclamation of Metal Values from Metal-Finishing Waste Treatment Sludges --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–018

Reclamation of Sulfuric Acid From Waste Streams --- Abstracted 600/9–75–001b --- REF. NO. EPA-670/2–75–016

Recovery of Fatty Materials From Edible Oil Refinery Effluents – REF. NO. EPA-660/2–73–015

Recycle of Synthetic Warp Sizes From Textile Desizing Wastewater --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–014

Refinery Effluent Water Treatment Plant Using Activated Carbon --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/2–75–020

Regeneration of Chromated Aluminum Deoxidizers – REF. NO. EPA-660/2–73–023

Removal of Chromium from Plating Rinse Water Using Activated Carbon --- Abstracted 600/9–75–001c --- REF. NO. EPA-670/2–75–055

Renovation of Industrial Inorganic Wastewater by Evaporation with Interface Enhancement – REF. NO. EPA-600/2–76–017

CURRENT SUBJECT AREA INDEX

INDUSTRIAL POLLUTION CONTROL

Research Study of Coal Preparation Plant and By-Product Coke Plant Effluents – REF. NO. EPA-660/2-74-050
Reuse of Power Plant Desulfurization Waste Water – REF. NO. EPA-600/2-76-024
Rum Distillery Slops Treatment by Anaerobic Contact Process – REF. NO. EPA-660/2-74-074
Sampling and Identification of Pollutant Oils in Industrial Watercourses – REF. NO. EPA-600/2-76-031
Separation, Dewatering, and Disposal of Sugar Beet Transport Water Solids Phase I – REF. NO. EPA-660/2-74-093
Shrimp Canning Waste Treatment Study – REF. NO. EPA-660/2-74-061
State-of-The-Art For The Inorganic Chemicals Industry: Commercial Explosives --- Abstracted 600/9-75-001a — REF. NO. EPA-600/2-74-009b
State-of-The-Art For The Inorganic Chemicals Industry: Industrial Inorganic Gases --- Abstracted 600/9-75-001a — REF. NO. EPA-600/2-74-009c
State-of-The-Art For The Inorganic Chemicals Industry: Inorganic Pesticides --- Abstracted 600/9-75-001a — REF. NO. EPA-600/2-74-009a
Studies of Low Molecular Weight Lignin Sulfonates – REF. NO. EPA-660/2-74-069
Study of Feasibility of Herbicide Orange Chlorinolysis – REF. NO. EPA-600/2-74-006
Submerged Combustion Evaporator for Concentration of Brewery Spent Grain Liquor – REF. NO. EPA-660/2-74-059
Sulfuric Acid and Ferrous Sulfate Recovery From Waste Pickle Liquor – REF. NO. EPA-660/2-73-032
Taxonomy of Klebsiella pneumoniae Isolated From Pulp/Paper Mill Wastewater --- Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-024
Technical and Economic Evaluation of Cooling Systems Blowdown Control Techniques – REF. NO. EPA-660/2-73-026
Test Method for Volatile Component Stripping of Wastewater – REF. NO. EPA-660/2-74-044
Treatment and Recovery of Fluoride Industrial Waste – REF. NO. EPA-660/2-73-024
Treatment of Cheese Processing Wastewaters in Aerated Lagoons – REF. NO. EPA-660/2-74-012
Treatment of Domestic Wastewater and NSSC Pulp and Paper Mill Wastes – REF. NO. EPA-660/2-73-010
Treatment of Packing House Waste by Anaerobic Lagoons in Plastic-Media Filters – REF. NO. EPA-660/2-74-027
Treatment of Sulfite Evaporator Condensates for Recovery of Volatile Components – REF. NO. EPA-660/2-73-030
Treatment of Textile Wastewater by Activated Sludge and Alum Coagulation --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-055
Turbulent Bed Cooling Tower --- Abstracted 600/9-75-001c — REF. NO. EPA-660/2-75-027
Waste Citrus Activated Sludge As a Poultry Feed Ingredient --- Abstracted 600/9-75-001a — REF. NO. EPA-660/2-75-001
Waste Control and Abatement in the Processing of Sweet Potatoes – REF. NO. EPA-660/2-73-021
Waste Water Treatment and Reuse in a Metal Finishing Job Shop – REF. NO. EPA-670/2-74-042
Wastewater Abatement in Canning Vegetables by IQB Blanching – REF. NO. EPA-660/2-74-006
Wastewater Characterization for the Specialty Food Industry – REF. NO. EPA-660/2-74-075
Water and Waste Management in Poultry Processing – REF. NO. EPA-660/2-74-031
Water Recycle/Reuse Possibilities: Power Plant Boiler and Cooling System – REF. NO. EPA-660/2-74-089
Waterborne Wastes of the Paint and Inorganic Pigments Industries – REF. NO. EPA-670/2-74-030

NON-POINT POLLUTION CONTROL

Abatement of Mine Drainage Pollution By Underground Precipitation – REF. NO. EPA-670/2-73-092
Agriculture and Clean Water – Proceedings of a Conference on Agricultural Water Pollution Control --- Abstracted 600/9-75-001d — REF. NO. EPA-600/9-75-005
Anaerobic-Aerobic Lagoon Treatment of Dairy Manure Wastes – REF. NO. EPA-660/2-74-030
Analysis of Emissions from Outboard Two Cycle Marine Engines --- Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-061
Analysis of Pollution from Marine Engines and Effects on the Environment --- Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-062
Analysis of Pollution from Marine Engines and Effects on the Environment – Southern Lakes --- Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-063
Analysis of Pollution from Marine Engines and Effects on the Environment – Summary Report --- Abstracted 600/9-75-001c — REF. NO. EPA-670/2-75-064
Analysis of Pollution Control Costs – REF. NO. EPA-670/2-74-009
Applications of Reverse Osmosis to Acid Mine Drainage Treatment – REF. NO. EPA-670/2-73-100
Appraisal of Neutralization Processes to Treat Coal Mine Drainage – REF. NO. EPA-670/2-73-093
Assessing Effects on Water Quality by Boating Activity – REF. NO. EPA-670/2-74-072
Brine Disposal Treatment Practices Relating to the Oil Production Industry – REF. NO. EPA-660/2-74-037
Carbonate Bonding of Taconite Tailings – REF. NO. EPA-670/2-74-001
Characterization of Vessel Waste in Duluth-Superior Harbor --- Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-097
Combustion Toilet for Use on Small Boats – REF. NO. EPA-670/2-74-053
Control of Water Pollution From Cropland, Vol. I – A Manual for Guideline Development – REF. NO. EPA-600/2-75-026a
Conversion of Cattle Feedlot Wastes to Ammonia Synthesis Gas – REF. NO. EPA-660/2-74-090
Crankcase Drainage from In-Service Out-board Motors --- Abstracted 600/9-75-001a — REF. NO. EPA-670/2-74-092
Demonstration of a Non-Aqueous Sewage Disposal System – REF. NO. EPA-670/2-73-088
Demonstration of the Separation and Disposal of Concentrated Sediments – REF. NO. EPA-660/2-74-072
Demonstration of Three Recirculating Swine Waste Management Systems – REF. NO. EPA-660/2-74-009
Design Parameters for Animal Waste Treatment Systems – REF. NO. EPA-660/2-74-063

CURRENT SUBJECT AREA INDEX

NON-POINT POLLUTION CONTROL

Development and Evaluation Report: Physical Chemical Marine Sanitation System – REF. NO. EPA-670/2-74-043
Development of Field Applied DDT – REF. NO. EPA-660/2-74-036
Development of On-Shore Treatent System for Sewage from Watercraft Retention System – REF. NO. EPA-670/2-74-056
Devices for On – Board Treatment of Waste from Vessels --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-091
Effects of Exhaust from Two-Cycled Outboard Engines – REF. NO. EPA-670/2-74-063
Electrochemical Removal of Heavy Metals from Acid Mine Drainage – REF. NO. EPA-670/2-74-023
Environmental Protection in Surface Mining of Coal – REF. NO. EPA-670/2-74-093
Evaluation of Drainage for Salinity Control in Grand Valley – REF. NO. EPA-660/2-74-084
Evaluation of Irrigation Scheduling for Salinity Control in Grand Valley – REF. NO. EPA-660/2-74-052
Evaluation of MTF for Testing Hazardous Material Spill Control Equipment --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-74-073
Evaluation of Tailings Ponds Sealants – REF. NO. EPA-660/2-74-065
Executive Summary of Three EPA Demonstration Programs in Erosion and Sediment Control – REF. NO. EPA-660/2-74-073
Fabric Boom Concept for Containment and Collection of Floating Oil – REF. NO. EPA-670/2-73-069
Feasibility of 5 gpm Dynactor/Flash Magnetic Separator System to Treat Spilled Hazardous Materials --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-004
Feasibility Study of a New Surface Mining Method "Longwall Stripping" – REF. NO. EPA-670/2-74-002
Gas and Leachate from Landfills: Formation, Collection, and Treatment – REF. NO. EPA-600/9-76-004
Gas Requirements to Pressurize Abandoned Deep Mines – REF. NO. EPA-670/2-73-054
Guidelines for the Disposal of Small Quantities of Unused Pesticide --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-057
Herbicide Runoff from Four Coastal Plain Soil Types – REF. NO. EPA-660/2-74-017
Impact of Hydrologic Modifications on Water Quality --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-007
Investigation of Surface Films – Chesapeake Bay Entrance – REF. NO. EPA-670/2-73-099
Joint Construction Sediment Control Project – REF. NO. EPA-660/2-73-035
Laboratory Study of Self-Sealing Limestone Plugs for Mine Openings – REF. NO. EPA-670/2-73-081
Limestone and Limestone-Lime Neutralization of Acid Mine Drainage – REF. NO. EPA-670/2-74-051
Liquid Aerobic Composting of Cattle Wastes and Evaluation of Byproducts – REF. NO. EPA-660/2-74-034
Livestock and the Environment – A Bibliography with Abstracts – REF. NO. EPA-660/2-74-024
Livestock and the Environment---A Bibliography with Abstracts, Volume II --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/2-75-003
Losses of Fertilizers and Pesticides from Claypan Soils – REF. NO. EPA-660/2-74-068
Management Practices Affecting Quality and Quantity of Irrigation Return Flow --- Abstracted 600/9-75-001a --- REF. NO. EPA-660/2-75-005
Methods to Treat, Control and Monitor Spilled Hazardous Materials --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-042
Mine Drainage Pollution Control Demonstration Grant Procedures and Requirement --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-74-003
Mine Spoil Potentials for Soil and Water Quality – REF. NO. EPA-670/2-74-070
Modeling Pesticides and Nutrients on Agricultural Lands – REF. NO. EPA-600/2-76-043
Nitrogen and Phosphorus Losses from Agronomy Plots in North Alabama – REF. NO. EPA-660/2-74-033
North Fork Alluvial Decontamination Project, Hubbard Creek Reservoir Watershed – REF. NO. EPA-660/2-74-019
Odors from Confined Livestock Production – A State of the Art – REF. NO. EPA-660/2-74-023
Oil Recovery System Using Sorbent Material – REF. NO. EPA-670/2-73-068
Oil Recovery System Utilizing Polyurethane Foam—A Feasibility Study – REF. NO. EPA-670/2-73-084
Oil Spill and Oil Pollution Reports --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-003
Oil Spill and Oil Pollution Reports – November 1974 – February 1975 --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-044
Oil Spill and Oil Pollution Reports, February 1975 – April 1975 --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-059
On-Shore Treatment Systems for Sewerage from Watercraft Retention Systems --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/2-75-007
Pesticide Movement from Crop Lands into Lake Erie – REF. NO. EPA-660/2-74-032
Pesticide, Transport and Runoff Model for Agricultural Land – REF. NO. EPA-660/2-74-013
Pollution Abatement From Cattle Feedlots in Northeastern Colorado and Nebraska --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-015
Pollution Aspects of Catfish Production—Review and Projections – REF. NO. EPA-660/2-74-064
Pollution Problems and Research Needs for an Oil Shale Industry – REF. NO. EPA-660/2-74-067
Prediction of Sub-soil Erodibility Using Chemical, Mineralogical and Physical Parameters – REF. NO. EPA-660/2-74-043
Preliminary Design of a Comprehensive Waste Oil Processing Facility --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-056
Programmed Demonstration for Erosion and Sediment Control Specialist – REF. NO. EPA-660/2-74-071
Quantification of Pollution in Agricultural Runoff – REF. NO. EPA-660/2-74-005
Recycling of Waste Oils --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-068
Removal of Heavy Metals from Mine Drainage by Precipitation – REF. NO. EPA-670/2-73-080
Removal of Manganese From Mine Drainage by Ozone and Chlorine --- Abstracted 600/9-75-001b --- REF. NO. EPA-670/2-75-006
Research Status of Effects of Land Application of Animal Wastes --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/2-75-010
Scientific Irrigation Scheduling for Salinity Control of Irrigation Return Flows --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-064
Selected Irrigation Return Flow Quality Abstracts, 1974 – REF. NO. EPA-600/2-76-019
Selected Irrigation Return Flow Quality Abstracts: 1972–1973 – REF. NO. EPA-660/2-74-049

CURRENT SUBJECT AREA INDEX

NON-POINT POLLUTION CONTROL

Soil Modification for Denitrification and Phosphate Reduction of Feed Lot Wastes – REF. NO. EPA-660/2-74-057
Sources of Oil and Water in Bilges of Great Lakes Ships – REF. NO. EPA-670/2-74-054
State of Maryland Waste Oil Recovery and Reuse Program – REF. NO. EPA-670/2-74-013
State-of-the-Art: Sand and Gravel Industry – REF. NO. EPA-660/2-74-066
State-of-the-Art: Uranium Mining, Milling, and Refining Industry – REF. NO. EPA-660/2-74-038
Storage and Disposal of Iron Ore Processing Wastewater – REF. NO. EPA-660/2-74-018
Surface Effects Skimmer Development --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-066
Survival of Pathogens in Animal Manure Disposal --- Abstracted 600/9-75-001c --- REF. NO. EPA-660/2-75-012
Treatment and Ultimate Disposal of Cattle Feedlot Wastes --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/2-75-013
Treatment of Hazardous Material Spills With Floating Mass Transfer Media – REF. NO. EPA-670/2-73-078
Up-Dip Versus Down-Dip Mining: An Evaluation --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-047
Urban Runoff Pollution Control Program Overview: FY 76 – REF. NO. EPA-600/2-76-095
Use of Soil Parameters for Describing Pesticide Movement Through Soils --- Abstracted 600/9-75-001b --- REF. NO. EPA-660/2-75-009
Volatization of Losses of Pesticides from Soil – REF. NO. EPA-660/2-74-054
Waste Oil Recycling and Disposal – REF. NO. EPA-670/2-74-052
Waste Treatment System for Confined Hog Raising Operations – REF. NO. EPA-660/2-74-047
Water Quality Control in Mine Spoils — Upper Colorado River Basin --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/2-75-048

AIR POLLUTION CONTROL

Absorption of Sulfur Dioxide In Spray Column and Turbulant Contacting Absorbers – REF. NO. EPA-600/2-75-023
Absorption of SO_2 into Lime Slurries: Absorption Rates and Kinetics – REF. NO. EPA-650/2-73-047
Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part I – REF. NO. EPA-600/2-76-016a
Abstracts of the 1971–1974 United States and Foreign Open Literature on Noise—Part II – REF. NO. EPA-600/2-76-016b
Adsorption of Odorous Pollutants by Active Manganese Dioxide – REF. NO. EPA-650/2-74-063
Aerodynamic Control of Nitrogen Oxides and Other Pollutants from Fossil Fuel Combustion Volume II – Raw Data and Experimental Equipment – REF. NO. EPA-650/2-73-033b
Aerodynamic Control of Nitrogen Oxides and Other Pollutants From Fossil Fuel Combustion Volume I – Data Analysis and Summary of Conclusions – REF. NO. EPA-650/2-73-033a
Analysis of Polycyclic Organic Materials in Coal, Coal Ash, Fly Ash, and Other Fuel and Emission Samples – REF. NO. EPA-600/2-76-075
Analysis of Test Data for NOx Control in Gas and Oil-Fired Utility Boilers --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-012
Andersen Filter Substrate Weight Loss --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-022
Applicability of the Meyers Process for Chemical Desulfurization of Coal: Survey of 35 Coals – REF. NO. EPA-650/2-74-025a
Applicability of the Meyers Process of Chemical Desulfurization of Coal: Initial Survey of Fifteen Coals – REF. NO. EPA-650/2-74-025
Application of Automatic Data Processing Technology to Laboratory Problems --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-035
Application of Holographic Methods to the Measurement of Flames and Particulate – Volume II – REF. NO. EPA-650/2-74-031b
Application of Holographic Methods to the Measurement of Flames and Particulate – Volume 1 – REF. NO. EPA-650/2-74-031a
Applying Fabric Filtration to Coal Fired Industrial Boilers (A Pilot Scale Investigation) – REF. NO. EPA-650/2-74-058a
Applying Fabric Filtration to Coal Fired Industrial BoilersA Preliminary Pilot Scale Investigation – REF. NO. EPA-650/2-74-058
Assessment of the Applicability of Automotive Emission Control Technology to Stationary Engines – REF. NO. EPA-650/2-74-051
Assessment of the Degree of Flexibility in Fuel Distribution Patterns – REF. NO. EPA-600/2-76-076
Assessment of the Federal Noise Research, Development, and Demonstration Activities: FY 73 – FY 75 --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-010
Assessment of the Potential of Clean Fuels and Energy Technology – REF. NO. EPA-600/2-74-001
Assessment of Catalysts for Control of NOx from Stationary Power Plants, Phase I, Volume I – Final Report --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-001a
Assessment of Catalysts for Control of NOx from Stationary Power Plants, Phase I, Volume II – Data Bank Citation Indices --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-001b
Assessment of Particle Control Technology for Enclosed Asbestos Sources—Phase II – REF. NO. EPA-600/2-76-065
Assessment of Particle Control Technology for Enclosed Asbestos Sources – REF. NO. EPA-650/2-74-088
Atmospheric Emissions from the Asphalt Industry – REF. NO. EPA-650/2-73-046
Atmospheric Emissions from Asphalt Roofing Processes – REF. NO. EPA-650/2-74-101
Atmospheric Emissions From the Petroleum Refining Industry – REF. NO. EPA-650/2-73-017
Atmospheric Pollution Potential from Fossil Fuel Resource Extraction, On-Site Processing, and Transportation – REF. NO. EPA-600/2-76-064
Boiler Modification Cost Survey for Sulfur Oxides Control by Fuel Substitution --- Abstracted 600/9-75-001b --- REF. NO. EPA-650/2-74-123
Braxton Sonic Agglomerator Evaluation – REF. NO. EPA-650/2-74-036
Burner Criteria for NOx Control; Volume I—Influence of Burner Variables on NOx in Pulverized Coal Flames – REF. NO. EPA-600/2-76-061a
Carbon Oxidation Catalyst Mechanism Study for Fuel Cells – REF. NO. EPA-600/2-76-057
Catalytic Combustion, a Pollution-Free Means of Energy Conversion – REF. NO. EPA-650/2-73-018
Catalytic Desulfurization and Denitrogenation --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-063
Catalytic Oxidation of Fuels for NO_x Control from Area Sources – REF. NO. EPA-600/2-76-037

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

Catalytic Oxidation of Sulfur Dioxide Using Isotopic Tracers – REF. NO. EPA-650/2–73–020
Changes in the Global Energy Balance – REF. NO. EPA-650/2–74–116
Characterization and Control of Asbestos Emissions from Open Sources --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–090
Characterization of Atmospheric Emissions from Polyurethane Resin Manufacture – REF. NO. EPA-650/2–74–107
Charged Droplet Scrubbing of Submicron Particulate – REF. NO. EPA-650/2–74–075
Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil—Second Phase – REF. NO. EPA-650/2–73–039
Chemically Active Fluid-Bed Process for Sulphur Removal During Gasification of Heavy Fuel Oil – Second Phase – REF. NO. EPA-650/2–74–109
Chemistry of Fuel Nitrogen Conversion to Nitrogen Oxides in Combustion – REF. NO. EPA-600/2–76–039
Clean Fuels from Agricultural and Forestry Wastes – REF. NO. EPA-600/2–76–090
Coke Charging Pollution Control Demonstration – REF. NO. EPA-650/2–74–022
Coke Oven Charging Emission Control Test Program – Supplemental Observations – REF. NO. EPA-650/2–74–062a
Coke Oven Charging Emission Control Test Program—Volume I – REF. NO. EPA-650/2–74–062
Coke Oven Smokeless Pushing System Design Manual – REF. NO. EPA-650/2–74–076
Combustion Control of Pollutants from Multiburner Coal-fired System – REF. NO. EPA-650/2–74–038
Conceptual Design of a Commercial Scale Plant for Chemical Desulfurization of Coal --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–051
Conditioning of Fly Ash with Sulfamic Acid, Ammonium Sulfate, and Ammonium Bisulfact --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–114
Conditioning of Fly Ash With Sulfur Tri-Oxide and Ammonia – REF. NO. EPA-600/2–75–015
Continuous Measurement of Gas Composition From Stationary Sources --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–012
Continuous Measurement of Total Gas Flowrate from Stationary Sources --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–020
Control of Environmental Impacts From Advanced Energy Sources – REF. NO. EPA-600/2–74–002
Control of Reclamation (Sinter) Plant Emissions Using Electrostatic Precipitators – REF. NO. EPA-600/2–76–002
Control of Steel Plant Scarfing Emissions Using Wet Electrostatic Precipitators – REF. NO. EPA-600/2–76–054
Control of Sulfur Dioxide Emissions from Copper Smelters: Volume I – Steam Oxidation of Pyritic Copper Concentrates – REF. NO. EPA-650/2–74–085a
Control of Sulfur Dioxide Emissions from Copper Smelters: Volume II – Hydrogen Sulfide Production from Copper Concentrates – REF. NO. EPA-650/2–74–085b
Control Technology for Fine Particulate Emissions – REF. NO. EPA-650/2–74–027
Defense Technology for Environmental Protection; Volume I— Final Report – REF. NO. EPA-600/2–76–068a
Defense Technology for Environmental Protection; Volume II— Bibliography – REF. NO. EPA-600/2–76–068b
Demetallization of Heavy Residual Oils – REF. NO. EPA-650/2–73–041
Demetallization of Heavy Residual Oils – Phase II – REF. NO. EPA-650/2–73–041a
Demonstration of Reduced Hydrocarbon Emissions from Gasoline Loading Terminals --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–042
Design and Operating Parameters for Emission Control Studies: White Pine Copper Smelter – REF. NO. EPA-600/2–76–036a
Design and Operating Parameters for Emission Control Studies: Kennecott, Hayden, Copper Smelter – REF. NO. EPA-600/2–76–036b
Design and Operating Parameters for Emission Control Studies: Kennecott, McGill, Copper Smelter – REF. NO. EPA-600/2–76–036c
Design and Operating Parameters for Emission Control Studies: Kennecott, Hurley, Copper Smelter – REF. NO. EPA-600/2–76–036d
Design and Operating Parameters for Emission Control Studies: Magma, San Manuel, Copper Smelter – REF. NO. EPA-600/2–76–036e
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Ajo, Copper Smelter – REF. NO. EPA-600/2–76–036f
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Morenci, Copper Smelter – REF. NO. EPA-600/2–76–036g
Design and Operating Parameters for Emission Control Studies: Phelps Dodge, Douglas, Cooper Smelter – REF. NO. EPA-600/2–76–036h
Design and Operating Parameters for Emission Control Studies: ASARCO, El Paso, Copper Smelter – REF. NO. EPA-600/2–76–036i
Design and Operating Parameters for Emission Control Studies: ASARCO, Hayden, Copper Smelter – REF. NO. EPA-600/2–76–036j
Design and Operating Parameters for Emission Control Studies: ASARCO, Tacoma, Copper Smelter – REF. NO. EPA-600/2–76–036k
Design of an Optimum Distillate Oil Burner for Control of Pollutant Emissions – REF. NO. EPA-650/2–74–047
Design Development and Fabrication of a Prototype High-Vol. Particulate Mass Sampling Train – REF. NO. EPA-650/2–74–067
Design Trends and Operating Problems in Combustion Modification of Industrial Boilers – REF. NO. EPA-650/2–74–032
Design, Development, and Field Test of a Droplet Measuring Device – REF. NO. EPA-650/2–75–018
Design, Fabrication, and Installation of a Particulate Aerodynamic Test Facility – REF. NO. EPA-650/2–74–103
Detailed Cost Estimates For Advanced Effluent Desulfurization Processes --- Abstracted 600/9–75–001b --- REF. NO. EPA-600/2–75–006
Determination of Hazardous Elements in Smelter-Produced Sulfuric Acid – REF. NO. EPA-650/2–74–131
Determination of Height for Stack Near Building—Wind Tunnel Study – REF. NO. EPA-600/4–76–001
Development of an Approach to Identification of Emerging Technology and Demonstration Opportunities – REF. NO. EPA-650/2–74–048
Development of Sampling and Analytical Methods of Lime/Limestone Wet Scrubbing Tests – REF. NO. EPA-650/2–74–024
Direct Use of Coal in a Fuel Cell: Feasibility Investigation – REF. NO. EPA-650/2–75–040
Disposal of By-products from Non-regenerable Flue Gas Desulfurization Systems: Initial Report – REF. NO. EPA-650/2–74–037a
Distributions of Industrial and Commercial-Institution External Combustion Boilers --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2–75–021
Drift Data Acquired on Mechanical Salt Water Cooling Devices – REF. NO. EPA-650/2–75–060
Dynactor Scrubber Evaluation --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2–74–083
Effect of Chemical Composition on the Surface Resistivity of Fly Ash --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2–75–017
Effect of Filtration Parameters on Dust Cleaning Fabrics – REF. NO. EPA-600/2–76–074

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

Effect of Fuel Sulfur on NO_x Emissions from Premixed Flames — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–075

Effect of Gas Turbine Efficiency and Fuel Cost on Cost Producing Electric Power – REF. NO. EPA-650/2–74–041

Effectiveness of Selected Fuel Additives in Controlling Pollution Emissions From Residual Oil-Fired Boilers – REF. NO. EPA-650/2–73–031

Effects of Design and Operating Variables on NO_x from Coal-Fired Furnaces— Phase I – REF. NO. EPA-650/2–74–002a

Effects of Design and Operating Variables on NO_x from Coal-Fired Furnaces – Phase II – REF. NO. EPA-650/2–74–002b

Effects of Transient Operating Conditions on Steam – Electric Generator Emissions – REF. NO. EPA-600/2–75–022

Efficiencies in Power Generation – REF. NO. EPA-650/2–74–021

Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume I – REF. NO. EPA-600/2–76–049a

Electrical Energy As An Alternate To Clean Fuels For Stationary Sources; Volume II—Appendix – REF. NO. EPA-600/2–76–049b

Electrostatic Precipitator Performance Model — Abstracted 600/9–75–001b — REF. NO. EPA-650/2–74–132

Enclosed Coke Pushing and Quenching System Design Manual – REF. NO. EPA-650/2–73–028

Energy Conservation Techniques for the Iron Foundry Cupola – REF. NO. EPA-600/2–76–071

Energy Consumption: Fuel Utilization and Conservation in Industry – REF. NO. EPA-650/2–75–032d

Energy Consumption: Paper, Stone/Clay/Glass/Concrete, and Food Industries — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–032c

Energy Consumption: The Chemical Industry — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–032a

Energy Consumption: The Primary Metals and Petroleum Industries — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–032b

Energy Supply, Demand/Need, and the Gaps Between: Volume I – An Overview – REF. NO. EPA-600/2–76–044a

Energy Supply, Demand/Need, and the Gaps Between: Volume II – Monographs and Working Papers – REF. NO. EPA-600/2–76–044b

Entrainment Separators for Scrubbers – Final Report – REF. NO. EPA-650/2–74–119b

Entrainment Separators for Scrubbers – Initial Report – REF. NO. EPA-650/2–74–119a

Environmental Catalog of Industrial Processes; Volume I—Oil/ Gas Production Petroleum Refining, Carbon Black, and Basic Petrochemicals – REF. NO. EPA-600/2–76–051a

Environmental Catalog of Industrial Processes; Volume II— Industrial Organic Chemicals – REF. NO. EPA-600/2–76–051b

Environmental Catalog of Industrial Processes; Volume III— Organic Dyes/Pigments and Pesticides – REF. NO. EPA-600/2–76–051c

Environmental Catalog of Industrial Processes; Volume V— Brine/Evaporite Chemicals, Fluorocarbon/Hydrogen Fluoride, and Gypsum/Wallboard – REF. NO. EPA-600/2–76–051e

Environmental Catalog of Industrial Processes; Volume VII— Iron and Steel, Primary Aluminum, and Titanium – REF. NO. EPA-600/2–76–051g

Environmental Consideration in Future Energy Growth – REF. NO. EPA-600/5–73–004

Environmental Considerations for Oil Shale Development – REF. NO. EPA-650/2–74–099

Environmental Problem Definition for Petroleum Refineries, Synthetic Natural Gas Plants, and Liquefied Natural Gas Plants — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–068

Equimolar NO_2 Absorption into Magnesia Slurry – A Pilot Feasibility Study – REF. NO. EPA-650/2–73–015

Estimating Kinetics of Combustion Especially Reactions Involving NO_x and SO_x – REF. NO. EPA-600/2–75–019

Evaluation of a Particulate Scrubber on a Coal-Fired Utility Boiler — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–074

Evaluation of the Fluidized-Bed Combustion Process Volume I – Pressurized Fluidized-Bed Combustion Process Development and Evaluation – REF. NO. EPA-650/2–73–048a

Evaluation of the Fluidized-Bed Combustion Process Volume II – Fluidized Bed Boiler Combined-Cycle Power Plant Development—Volume I Appendices – REF. NO. EPA-650/2–73–048b

Evaluation of the Fluidized-Bed Combustion Process Volume III – Pressurized Fluidized-Bed Boiler Development Plant Design – REF. NO. EPA-650/2–73–048c

Evaluation of the Fluidized-Bed Combustion Process Volume IV – Fluidized-Bed Gasification Desulfurization – REF. NO. EPA-650/2–73–048d

Evaluation of the Regenerative Pressurized Fluidized-Bed Combustion Process – REF. NO. EPA-650/2–74–012

Evaluation of Aeronetic Two-Phase Jet Scrubber – REF. NO. EPA-650/2–74–129

Evaluation of Centrifield Scrubber – REF. NO. EPA-650/2–74–129a

Evaluation of Eight Novel Fine Particle Collection Devices – REF. NO. EPA-600/2–76–035

Evaluation of Electric Field Fabric Filtration – REF. NO. EPA-600/2–76–041

Evaluation of Electrofluidized Bed – REF. NO. EPA-600/2–76–040

Evaluation of Electrostatic Augmentation for Fine Particle Control – REF. NO. EPA-600/2–76–055

Evaluation of Equations for Designing Ammoniacal Scrubbers to Remove Sulfur Oxides from Waste Gas – REF. NO. EPA-650/2–74–035

Evaluation of Low-Sulfur Western Coal Characteristics, Utilization, and Combustion Experience — Abstracted 600/9–75–001c — REF. NO. EPA-650/2–75–046

Evaluation of National Boiler Inventory — Abstracted 600/9–75–001d — REF. NO. EPA-600/2–75–067

Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: Synthane Process – REF. NO. EPA-650/2–74–009b

Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section 2. SRC Process – REF. NO. EPA-650/2–74–009f

Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification: Section 5. BI-GAS Process – REF. NO. EPA-650/2–74–009g

Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 6. HYGAS Process – REF. NO. EPA-650/2–74–009h

Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 7. U-Gas Process – REF. NO. EPA-650/2–74–009i

Evaluation of Pollution Control in Fossil Fuel Conversion Processes; Gasification: Section 8. Winkler Process – REF. NO. EPA-650/2–74–009j

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

Evaluation of Pollution Control in Fossil Fuel Conversion Processes, Coal Treatment: Section 1. Meyers Process – REF. NO. EPA-650/2-74-009k
Evaluation of Pollution Control in Fossil Fuel Conversion Processes (Analytical Test Plan) – REF. NO. EPA-650/2-74-009l
Evaluation of Pollution Control in Fossil Fuel Conversion Processes – Liquefaction: Section 3. H-Coal Process – REF. NO. EPA-650/2-74-009m
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification Section I: Koppers-Totzek Process – REF. NO. EPA-650/2-74-009a
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Gasification; Section I: CO2 Acceptor Process – REF. NO. EPA-650/2-74-009d
Evaluation of Pollution Control in Fossil Fuel Conversion Processes Liquefaction: Section I. COED Process – REF. NO. EPA-650/2-74-009e
Evaluation of Pollution Control in Fossil Fuel Conversion Processess Gasification; Section I; Lurgi Process – REF. NO. EPA-650/2-74-009c
Evaluation of Prechamber Spark Ignition Engine Concepts --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-023
Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes, Part 2 – REF. NO. EPA-650/2-74-098a
Evaluation of R&D Investment Alternatives for SO_x Air Pollution Control Processes – REF. NO. EPA-650/2-74-098
Evaluation of Sonics for Fine Particle Control – REF. NO. EPA-600/2-76-001
Evaluation of Sulfur Dioxide Emission Control Options for Iowa Power Boilers – REF. NO. EPA-650/2-74-127
Evaluation of Systems for Control of Emissions from Rocket Motors – Phase I – REF. NO. EPA-600/2-75-021a
Evaluation of Thermal Agglomeration for Fine Particle Control – REF. NO. EPA-600/2-76-067
Evaluation of Turbulent Agglomeration for Fine Particle Control – REF. NO. EPA-600/2-76-066
EPA Alkali Scrubbing Test Facility: Limestone Wet Scrubbing Test Result – REF. NO. EPA-650/2-74-010
EPA Alkali Scrubbing Test Facility: Sodium Carbonate and Limestone Test Results – REF. NO. EPA-650/2-73-013
EPA Alkali Scrubbing Test Facility: Advanced Program (First Progress Report) --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-050
EPA Alkali Scrubbing Test Facility: Summary of Testing Through October 1974 --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-047
EPA Fine Particle Scrubber Symposium (San Diego, 5/28–30/74) – REF. NO. EPA-650/2-74-112
Fabric Filter Cleaning Studies --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-009
Fate of Trace Constituents of Coal During Gasification – REF. NO. EPA-650/2-73-004
Feasibility of Flux Force/Condensation Scrubbing for Fine Particulate Collection – REF. NO. EPA-650/2-73-036
Federal Aircraft Noise Research, Development, and Demonstration Programs. FY 73 – FY 75 --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/2-75-003
Federal Machinery Noise Research, Development and Demonstration: FY 73–75 – REF. NO. EPA-600/2-75-008
Federal Noise Effects Research: FY 73 – FY 75 --- Abstracted 600/9-75-001a --- REF. NO. EPA-600/1-75-001
Federal Surface Vehicle Noise Research, Development, and Demonstration Program: FY 73 – FY 75 --- Abstracted 600/9-75-001a --- REF. NO. EPA-600/2-75-002
Field Measurements of Particle Size Distribution Sizing Devices – REF. NO. EPA-650/2-73-035
Field Test Sampling/Analytical Strategies and Implementation Cost Estimates: Coal Gasification and Flue Gas Desulfurization – REF. NO. EPA-600/2-76-093b
Field Testing: Application of Combustion Modifications to Control NO_x Emissions for Utility Boilers – REF. NO. EPA-650/2-74-066
Field Testing: Application of Combustion Modifications to Control Pollution Emissions from Industrial Boilers – Phase II – REF. NO. EPA-600/2-76-086a
Field Testing: Application of Combustion Modifications to Control Pollutant Emissions from Industrial Boilers – Phase I – REF. NO. EPA-650/2-74-078a
Fine Particle Scrubber Performance Tests – REF. NO. EPA-650/2-74-093
Flame Characterization Probes – REF. NO. EPA-650/2-74-023
Flare Systems Study – REF. NO. EPA-600/2-76-079
Fluidized Bed Combustion Process Evaluation (Phase I – Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume I – Summary --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-027a
Fluidized Bed Combustion Process Evaluation (Phase I – Residual Oil Gasification/Desulfurization Demonstration at Atmospheric Pressure) Volume II – Appendices --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-027b
Fluidized Bed Combustion Process Evaluation Phase II – Pressurized Fluidized Bed Coal Combustion Development – REF. NO. EPA-650/2-75-027c
Fluoride Emissions from Phosphoric Acid Plant Gypsum Ponds – REF. NO. EPA-650/2-74-095
Fractional Efficiency of a Utility Boiler Baghouse – Nuclea Generating Plant – REF. NO. EPA-600/2-75-013a
Fractional Efficiency of a Utility Boiler Baghouse: Sunbury Steam-Electric Station – REF. NO. EPA-600/2-76-077a
Fuel Gas Environmental Impact: Phase Report --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-078
Fuels Technology: A State-of-the-Art Review --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-034
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume 1 – REF. NO. EPA-650/2-73-019a
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume II – Appendices A through H – REF. NO. EPA-650/2-73-019b
Full-Scale Desulfurization of Stack Gas by Dry Limestone Injection: Volume III – Appendices I through L – REF. NO. EPA-650/2-73-019c
Gasification of Fossil Fuels Under Oxidative, Reductive, and Pyrolytic Conditions – REF. NO. EPA-650/2-73-042
General Motors/Environmental Protection Agency Sulfate Dispersion Experiment Selected EPA Research Papers – REF. NO. EPA-600/3-76-035
Guidelines for Burner Adjustments of Commercial Oil-FiredBoilers – REF. NO. EPA-600/2-76-088
Guidelines for Residential Oil-Burner Adjustments --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-069a
Hazardous Emission Characterization of Utility Boilers --- Abstracted 600/9-75-001d --- REF. NO. EPA-650/2-75-066

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

High-Velocity, High-Efficiency Aerosol Filtration – REF. NO. EPA-600/2-76-020
Hydrocarbon Emissions Reduction From Ethylene Dichloride Processes – REF. NO. EPA-600/2-76-053
Identification and Assessment of Asbestos Emissions from Incidental Sources of Asbestos – REF. NO. EPA-650/2-74-087
Identification and Characterization of the Use of Mixed Conventional and Waste Fuels --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-017
Identification of Regenerable Metal Oxide SO_2 Sorbents for Fluidized Coal Combustion --- Abstracted 600/9-75-001d --- REF. NO. EPA-650/2-75-065
Impact of Clean Fuels Combustion on Primary Particulate Emissions From Stationary Sources – REF. NO. EPA-600/2-76-052
Improved Air Pollution Control for a Kraft Recovery Boiler: Recovery Boiler No. 4 – REF. NO. EPA-650/2-74-071b
Improved Air Pollution Control for Kraft Recovery Boiler: Modified Recovery Boiler No. 3 – REF. NO. EPA-650/2-74-071a
Incinerator Overfire Mixing Demonstration --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-016
Indigester Black Liquor Oxidation for Odor Control in Kraft Pulping – REF. NO. EPA-650/2-74-005
Influence of Aerodynamic Phenomena on Formation in Combustion – Volume I. Experimental Results --- Abstracted 600/9-75-001d --- REF. NO. EPA-650/2-75-061a
Influence of Fiber Characteristics on Particulate Filtration --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-002
Influence of Fly Ash Compositional Factors on Electrical Volume Resistivity – REF. NO. EPA-650/2-74-074
Instrumental Analyses for Wet Scrubbing Processes – REF. NO. EPA-650/2-74-064
Interactions of Stack Gas Sulfur and Nitrogen Oxides on Dry Berkau – REF. NO. EPA-650/2-73-029
Interpretative Compilation of EPA Studies Related to Coal Quality and Cleanability – REF. NO. EPA-650/2-74-030
Investigation of Particulate Emission from Oil-Fired Residential Heating Units – REF. NO. EPA-650/2-74-026
Investigation of Surface Combustion Concepts for NO_x Control in Utility Boilers and Stationary Gas Turbines – REF. NO. EPA-650/2-73-014
Iron Foundry Cupola Recuperative Emission Control Demonstration – REF. NO. EPA-600/2-76-004
Iron Foundry Cupola Recuperative Emission Control Demonstration — Design Manual – REF. NO. EPA-650/2-74-004
Johns-Manville CHEAF Evaluation – REF. NO. EPA-650/2-75-058a
Kinetic Mechanisms of Methane/Air Combustion with Pollutant Formation – REF. NO. EPA-650/2-74-045
Kinetic Mechanisms Governing the Fate of Chemically Bound Sulfur and Nitrogen in Combustion – REF. NO. EPA-650/2-74-017
Lime/Limestone Scrubbing for SO_2 and Particulate Removal in a Marble Bed Scrubber – REF. NO. EPA-650/2-75-052
Lime/Limestone Scrubbing in a Pilot Dustraxtor – Key West – REF. NO. EPA-650/2-74-077
Lone Star Steel Steam-Hydro Air Cleaning System Evaluation – REF. NO. EPA-650/2-74-028
Magnesia Scrubbing Process as Applied to an Oil-Fired Power Plant --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-057
Marketing H_2SO_4 from SO_2 Abatement Sources— The TVA Hypothesis – REF. NO. EPA-650/2-73-051
Mathematical Model of Electrostatic Precipitation --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-037
Mathematical Simulation of an Adsorber for Pollutant Removal --- Abstracted 600/9-75-001b --- REF. NO. EPA-650/2-74-110
Measurement and Characterization of Particles in Wet Scrubbing Process for SO_x Control – REF. NO. EPA-650/2-73-024
Measurement of Atmospheric Sulfates: Evaluation of the Methylthymol Blue Method – REF. NO. EPA-600/4-76-015
Measurement of Entrained Liquid Levels in Effluent Gases from Scrubber Demisters – REF. NO. EPA-650/2-74-050
Measurement of Sulfur Dioxide, Particulate, and Trace Elements in Copper Smelter Converter and Roaster/Reverberatory Gas Streams – REF. NO. EPA-650/2-74-111
Method for Evaluating SO_2 Abatement Strategies --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-045
Mixed Oxides for Fuel Cell Electrodes – REF. NO. EPA-600/2-76-007
Mobile Fabric Filter System Design and Field Test Results – REF. NO. EPA-650/2-75-059
Molecular Sieve Control Process in Sulfuric Acid Plants --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-066
Molecular Sieve Mercury Control Process in Chlor-Alkali Plants – REF. NO. EPA-600/2-76-014
Molecular Sieve NO_x Control Process in Nitric Acid Plants – REF. NO. EPA-600/2-76-015
Molecular Sieve Tests for Control of NO Emissions From A Nitric Acid Plant; Volume II—Appendices – REF. NO. EPA-600/2-76-048b
Molecular Sieve Tests for Control of NO_x Emissions from a Nitric Acid Plant; Volume I – REF. NO. EPA-600/2-76-048a
Molecular Sieve Tests for Control of Sulfuric Acid Plant Emissions – REF. NO. EPA-600/2-76-047
NO_x Abatement for Stationary Sources in Japan – REF. NO. EPA-600/2-76-013b
NO_x Combustion Control Methods and Costs for Stationary Sources—Summary Study --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-046
Occurrence and Distribution of Potentially Volatile Trace Elements in Coal – REF. NO. EPA-650/2-74-054
Odor Control by Scrubbing in the Rendering Industry – REF. NO. EPA-600/2-76-009
Odor Removal from Air by Adsorption on Charcoal – REF. NO. EPA-650/2-74-084
Oil Shale Air Pollution Control --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/2-75-009
Optical Measurements of Smoke Particle Size Generated by Electric Arcs – REF. NO. EPA-650/2-74-034
Overview of EPA/IERL-RTP Scrubber Programs --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-054
Particulate Collection Efficiency Measurements on a Wet Electrostatic Precipitator --- Abstracted 600/9-75-001c --- REF. NO. EPA-650/2-75-033
Particulate Collection Efficiency Measurements on Three Electrostatic Precipitators --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-056
Particulate Collection Study, EPA/TVA Full-Scale Dry Limestone Injection Tests – REF. NO. EPA-650/2-74-053
Particulate Control Mobile Test Units: First Year's Operation – REF. NO. EPA-600/2-76-042
Particulate Emissions from Alfalfa Dehydrating Plants — Control Costs and Effectiveness – REF. NO. EPA-650/2-74-007
Particulate Removal From Gas Streams at High Temperature – High Pressure – REF. NO. EPA-600/2-75-020
Particulate Sizing Techniques for Control Device Evaluation – REF. NO. EPA-650/2-74-102

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

Particulate Sizing Techniques for Control Device Evaluation – REF. NO. EPA 650/2-74-102a

Pentapure Impinger Evaluation --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-024a

Petrograhpic Characteristics and Physical Properties of Marls, Chalks, Shells and Their Calcines Related to Desulfurization of Flue Gases – REF. NO. EPA 650/2-73-044

Pilot-Plant Study of an Ammonia Absorption Ammonium Bisulfate Regeneration Process, Topical Report Phases I and II – REF. NO. EPA 650/2-74-049a

Pollutant Analysis Cost Survey – REF. NO. EPA 650/2-74-125

Potentially Hazardous Emissions From The Extraction and Processing of Coal and Oil --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-038

Procedures for Measurement in Stratified Gases – Volume I – REF. NO. EPA 650/2-74-086a

Procedures for Measurement in Stratified Gases – Volume II, Appendices – REF. NO. EPA 650/2-74-086b

Proceeding, Coal Combustion Seminar, June 19–20, 1973 – REF. NO. EPA 650/2-73-021

Proceedings of Third International Conference on Fluidized-Bed Combustion – REF. NO. EPA 650/2-73-053

Proceedings, Symposium Control of Fine-Particulate Emissions from Industrial Sources, January 15–18, 1974 San Francisco, CA – REF. NO. EPA 600/2-74-008

Proceedings: Flue Gas Desulfurization Symposium 1973 – REF. NO. EPA 650/2-73-038

Proceedings: Symposium on the Use of Fabric Filters for the Control of Submicron Particulates (April 8–10, 1974, Boston, Ma.) – REF. NO. EPA 650/2-74-043

Proceedings: Symposium on Flue Gas Desulfurization – Atlanta, November 1974, Volume II – REF. NO. EPA 650/2-74-126b

Proceedings: Symposium on Fine Particles – Minneapolis, Minnesota, May 1975 --- Abstracted 600/9-75-001d --- REF. NO. EPA 600/2-75-059

Process Modifications for Control of Particulate Emissions from Stationary Combustion, Incineration, and Metals – REF. NO. EPA 650/2-74-100

Production of Clean Fuel Gas From Bituminous Coal – REF. NO. EPA 650/2-73-049

Production of Low-Sulfur Gasoline – REF. NO. EPA 650/2-74-130

Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase II – REF. NO. EPA 650/2-73-005a

Program for Reduction of NO_x from Tangential Coal-Fired Boilers, Phase IIa – NO_x – REF. NO. EPA 650/2-73-005b

Program for Reduction of NO_x from Tangential Coal-Fired Boilers – Phase I – REF. NO. EPA 650/2-73-005

Properties of Ammonium Sulfate, Ammonium, and Sulfur Dioxide Solutions in Ammonia Scrubbing Processes – REF. NO. EPA 650/2-73-012

POPEX—Ranking Air Pollution Sources by Population Exposure – REF. NO. EPA 600/2-76-063

Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion – REF. NO. EPA 650/2-74-057

Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion and Regeneration of Sulfur-Containing Additives – REF. NO. EPA 650/2-74-104

Refinery Catalytic Cracker Reginerator SO_x Control Process Survey – REF. NO. EPA 650/2-74-082

Regenerative Limestone Process for Fluidized – Bed Coal Combustion and Desulfurization – REF. NO. EPA 650/2-74-001

Residential Oil Furnace System Optimization—Phase I – REF. NO. EPA 600/2-76-038

Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume I – REF. NO. EPA 600/2-76-012a

Sampling and Analytical Strategies for Compounds in Petroleum Refinery Streams—Volume II. Process Analysis of Petroleum Refinery Streams – REF. NO. EPA 600/2-76-012b

Sasol Type Process for Gasoline, Methanol, SNG, and Low-BTU Gas from Coal – REF. NO. EPA 650/2-74-072

Scale Control in Limestone Wet Scrubbing Systems --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-031

Selected Characteristics of Hazardous Pollutant Emissions – REF. NO. EPA 600/2-74-004

Seminar on Electrostatics and Fine Particles --- September 1973 – REF. NO. EPA 650/2-74-081

Sinter Plant Windbox Gas Recirculating System Demonstration – REF. NO. EPA 600/2-75-014

Sodium Conditioning to Reduce Fly Ash Resistivity – REF. NO. EPA 650/2-74-092

Solid Waste Disposal Final Report – REF. NO. EPA 650/2-74-033

Source Assessment Prioritization of Air Pollution from Industrial Surface Coating Operations --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-019a

Source Assessment: Fertilizer Mixing Plants – REF. NO. EPA 600/2-76-032c

Source Assessment: Flat Glass Manufacturing Plants – REF. NO. EPA 600/2-76-032b

Source Assessment: Priorization of Stationary Air Pollution Sources—Model Description – REF. NO. EPA 600/2-76-032a

Sources and Characterization of Fine Particulate Test Dusts --- Abstracted 600/9-75-001b --- REF. NO. EPA 650/2-74-117

St. Louis Refuse Processing Plant Equipment, Facility, and Environmental Evaluations --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-044

St. Louis/Union Electric Refuse Firing Demonstration Air Pollution Test Support – REF. NO. EPA 650/2-74-073

Statistical Concepts for Design Engineers --- Abstracted 600/9-75-001b --- REF. NO. EPA 650/2-74-080

Stone & Webster/Ionics SO_2 Removal and Recovery Process: Phase I, Final Report --- Abstracted 600/9-75-001c --- REF. NO. EPA 650/2-75-045

Study of Air Pollutant Emissions from Residential Heating Systems – REF. NO. EPA 650/2-74-003

Study of Combustor Flow Computations and Comparison with Experiment – REF. NO. EPA 650/2-73-045

Study of Concepts for Minimizing Emissions From CokeOven Door Seals – REF. NO. EPA 650/2-75-064

Study of Ferroalloy Furnace Product Flexibility – REF. NO. EPA 650/2-75-063

Study of Flux Force – Condensation Scrubbing of Fine Particules – REF. NO. EPA 600/2-75-018

Study of Potential Problems and Optimum Opportunities in Retrofitting Industrial Processes to Low and Intermediate Energy Gas from Coal – REF. NO. EPA 650/2-74-052

CURRENT SUBJECT AREA INDEX

AIR POLLUTION CONTROL

Study of SO_x Control For Selected Industrial Boilers – REF. NO. EPA-600/2-75-011
Sulfur and Nitrogen Balances in the Solvent Refined Coal Process --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-011
Sulfur Compound Emissions of the Petroleum Production Industry --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-030
Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume I: Final Report – Executive Summary --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-010a
Sulfur Oxide Throwaway Sludge Evaluation Panel (SOTSEP), Volume II: Final Report – Technical Discussion — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-010b
Sulfuric Acid Plant Emissions During Start-up, Shutdown, and Malfunction – REF. NO. EPA-600/2-76-010
Survey and Evaluation of Kinetic Data on Reactions in Methane/Air Combustion – REF. NO. EPA-600/2-76-003
Survey of Flue Gas Desulfurization Systems – Dickerson Station, Potomac Electric Power Company – REF. NO. EPA-650/2-75-057g
Survey of Flue Gas Desulfurization Systems – Eddystone Station, Philadelphia Electric Company – REF. NO. EPA-650/2-75-057f
Survey of Flue Gas Desulfurization Systems – Hawthorn Station, Kansas City Power and Light Co. – REF. NO. EPA-650/2-75-057h
Survey of Flue Gas Desulfurization Systems – Lawrence Power Station, Kansas Power and Light Company – REF. NO. EPA-650/2-75-057e
Survey of Flue Gas Desulfurization Systems – Mohave Station, Southern California Edison Co. – REF. NO. EPA-650/2-75-057k
Survey of Flue Gas Desulfurization Systems – Reid Gardner Station, Nevada Power Co. – REF. NO. EPA-650/2-75-057j
Survey of Flue Gas Desulfurization Systems – Will County Station, Commonwealth Edison Co. – REF. NO. EPA-650/2-75-057i
Survey of Flue Gas Desulfurization Systems Cholla Power Generating Station, Arizona Public Service Company --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-057a
Survey of Flue Gas Desulfurization Systems La Cygne Station, Kansas City Power and Light Co. and Kansas Gas and Electric Co. --- Abstracted 600/9-75-001d — REF. NO. EPA-650/2-75-057b
Survey of Flue Gas Desulfurization Systems Paddy's Run Station, Louisville Gas and Electric – REF. NO. EPA-650/2-75-057d
Survey of Flue Gas Desulfurization Systems Phillips Power Station, Duquesne Light Co. – REF. NO. EPA-650/2-75-057c
Symposium on Electrostatic Precipitators for the Control of Fine Particles — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-016
Symposium on Flue Gas Desulfurization – Atlanta, November 1974 Volume I – REF. NO. EPA-650/2-74-126a
Symposium Proceedings: Environmental Aspects of Fuel Conversion Technology (May 1974, St. Louis, Missouri) — Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-118
System Analysis of Air Pollutant Emissions from the Chemical/ Plastics Industry – REF. NO. EPA-650/2-74-106
Systems Analysis Requirements for Nitrogen Oxide Control of Stationary Sources – REF. NO. EPA-650/2-74-091
SO_2 Abatement for Stationary Sources in Japan – REF. NO. EPA-600/2-76-013a
SO_2 Control Processes for Non-Ferrous Smelters – REF. NO. EPA-600/2-76-008
SO_2 Reduction in Non-utility Combustion Sources – Technical and Economic Comparison of Alternatives --- Abstracted 600/9-75-001d --- – REF. NO. EPA-600/2-75-073
Technical Manual for Measurement of Fugitive Emissions: Upwind/Downwind Sampling Method for Industrial Emissions – REF. NO. EPA-600/2-76-089a
Techniques for Measuring Fly Ash Resistivity – REF. NO. EPA-650/2-74-079
Tentative Procedures for Particle Sizing in Process Streams— Cascade Impactors – REF. NO. EPA-600/2-76-023
Test Evaluation of Cat-Ox High Efficiency Electrostatic Precipitator --- Abstracted 600/9-75-001c — REF. NO. EPA-600/2-75-037
Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume I — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-026a
Testing of a Molecular Sieve Used to Control Mercury Emission From A Chlor-Alkali Plant, Volume II – Appendices --- Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-026b
Theoretical and Experimental Study of the Lime/Limestone Wet Scrubbing Process — Abstracted 600/9-75-001c — REF. NO. EPA-650/2-75-006
Thermal Radiation Modeling for Pollution Predictions – REF. NO. EPA-650/2-74-011
Ther V Solventless Metal Decorating for Three-Piece Cans— Background – REF. NO. EPA-600/2-76-011
Total Suspended Particulates: Review and Analysis – REF. NO. EPA-600/2-76-092
Trace Pollutant Emissions from the Processing of Metallic Ores – REF. NO. EPA-650/2-74-115
Trace Pollutant Emissions from the Processing of Non-Metallic Ores – REF. NO. EPA-650/2-74-122
Vegetative Stabilization of Mineral Waste Heaps – REF. NO. EPA-600/2-76-087
Vinyl Chloride – An Assessment of Emissions Control Techniques and Costs – REF. NO. EPA-650/2-74-097
Wet Scrubber Liquid Utilization – REF. NO. EPA-650/2-74-108
Wind Tunnel Evaluation of Particle Sizing Instruments – REF. NO. EPA-600/2-76-073

DATA AND INFORMATION RESEARCH

Accumulation of Tritium in Various Species of Fish Reared in Tritiated Water – REF. NO. EPA-680/4-74-001
Development of a Biological Monitoring Network-A Test Case: Suitability of Livestock and Wildlife as Biological Monitors for Organophosphorus Contaminants --- Abstracted 600/9-75-001b — REF. NO. EPA-680/4-75-003
Directory of EPA, State and Local Environmental Quality Monitoring and Assessment Activities — Abstracted 600/9-75-001b — REF. NO. EPA-600/4-75-001
Ground Water Pollution Features of Federal and State Laws and Regulations – REF. NO. EPA-600/4-73-001a
Handbook of Radiochemical Analytical Methods --- Abstracted 600/9-75-001a — REF. NO. EPA-680/4-75-001
Influence of Land Use on Stream Nutrient Levels – REF. NO. EPA-600/3-76-014

CURRENT SUBJECT AREA INDEX

DATA AND INFORMATION RESEARCH

Method for Obtaining Replicate Particulate Samples from Stationary Sources – REF. NO. EPA-650/4-75-025

NATIONAL EUTROPHICATION SURVEY—Data Acquisitions and Laboratory Analysis System for Lake Samples --- Abstracted 600/9-75-001d — REF. NO. EPA-600/4-75-015

Polluted Groundwater: A Review of the Significant Literature – REF. NO. EPA-600/4-74-001

Polluted Groundwater: Estimating the Effects of Man's Activities (Formerly 600/4-74-002) – REF. NO. EPA-680/4-74-002

Polluted Groundwater: Some Causes, Effects, Controls and Monitoring – REF. NO. EPA-600/4-73-001b

Rationale and Methodology for Monitoring Groundwater Polluted by Mining Activities (Formerly 600/4-74-003) – REF. NO. EPA-680/4-74-003

Summary Report, Trail-Marking and Alarm Pheromones of Some Ants of the Genus Atta – REF. NO. EPA-660/2-74-081

Tropic Classification of Lakes Using LANDSAT-1 (ERTS-1) Multispectral Scanner Data – REF. NO. EPA-600/3-76-037

EQUIPMENT AND TECHNIQUES

Absorption of SO_2 by Alkaline Solutions in Venturi Scrubber Systems – REF. NO. EPA-650/2-73-003

Advanced Prototype Direct Reading Instrument for Particulate Mass Measurement – REF. NO. EPA-650/2-74-065

Analysis of Coprostanol, An Indicator of Fecal Contamination – REF. NO. EPA-660/2-74-021

Analysis of Organic Compounds in Two Kraft Mill Wastewaters --- Abstracted 600/9-75-001c — REF. NO. EPA-660/4-75-005

Analytical Methodology Information Center: Activities for 1973 – 1974 – REF. NO. EPA-670/4-74-003a

Analytical Quality Assurance for Trace Organic Analysis by Gas Chromotography/Mass Spectrometry – REF. NO. EPA-600/4-75-007

Application of Odor Technology to Mobil Sources Emission Instrumentation – REF. NO. EPA-650/2-73-025

Aqueous Odor Thresholds of Organic Pollutants in Industrial Effluents --- Abstracted 600/9-75-001a — REF. NO. EPA-660/4-75-002

Asbestos Fiber Atlas – REF. NO. EPA-650/2-75-036

Atomic Absorption Analysis of Phosphates in Water – REF. NO. EPA-670/2-73-079

Automated Analysis of Individual Refractory Organics in Polluted Water – REF. NO. EPA-660/2-74-076

Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents – REF. NO. EPA-670/4-73-001

Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1972) – REF. NO. EPA-650/2-73-001

Chemical and Physical Characterization of Automotive Exhaust Particulate Matter in the Atmosphere (Year Ending June 30, 1973) – REF. NO. EPA-650/2-73-002

Chemiluminescent Reactive Hydrocarbon Analyzer for Mobile Sources – REF. NO. EPA-650/2-75-069

Collection Efficiency Study of the Proposed Method 13 Sampling Train --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-052

Compact Sampling System for Collection of Particulates from Stationary Sources --- Abstracted 600/9-75-001b — REF. NO. EPA-650/2-74-029

Comparison of Germanium Detectors for Neutron Activation Analysis for Mercury – REF. NO. EPA-660/2-74-045

Comparison of Methods for Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-023

Design, Construction, and Testing of a Commercial Prototype Disc Diluter – REF. NO. EPA-650/2-74-055

Design, Fabricate, and Demonstrate an Instrument for Assaying Benzo (a) Pryrene – REF. NO. EPA-650/2-74-068

Determination of the Magnitude of SO_2, NO, CO_2, and O_2 Stratification in the Ducting of Fossil Fuel Fired Power Plants --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-053

Determination of Aircraft Turbine Engine Particulates – REF. NO. EPA-650/2-75-055

Determination of Coronal Ozone Production by High Voltage Power Transmission Lines – REF. NO. EPA-650/4-73-003

Determination of Molecular Hydrogen Sulfide — Abstracted 600/9-75-001a — REF. NO. EPA-660/4-75-001

Determination of Volatile Organic Compounds at the UG/1 Level in Water by Gas Chromatography – REF. NO. EPA-670/4-74-009

Determining Tetrafluoroborates, an Evaluation of Fluoroborate Anion Selective Electrode – REF. NO. EPA-600/4-76-005

Development and Fabrication of Mass Emission Data and Control System for the Stationary Source Simulator – REF. NO. EPA-650/2-73-009

Development of a High-Purity for High Temperature Particulate Sampling and Analysis – REF. NO. EPA-650/2-73-032

Development of a Prototype Nitrate Detector – REF. NO. EPA-650/2-74-133

Development of a Prototype Sulfuric Acid Monitor – REF. NO. EPA-650/2-75-013a

Development of a Supplementary Emission Measurements Monitoring System – REF. NO. EPA-650/2-73-008

Development of an Instrumental Monitoring Method for Measurement of Asbestos Concentrations in or Near Sources – REF. NO. EPA-650/2-73-016

Development of A Gas Laser System to Measure Trace Gases by Long Path Absorption Techniques: Volume II – Field Evaluation of Gas Laser System for Ozone Monitoring Final Report – REF. NO. EPA-650/2-74-046b

Development of Air Sampling Methodology – REF. NO. EPA-650/2-75-067

Development of Analytical Techniques for Measuring Ambient Atmospheric Carcinogenic Vapors --- Abstracted 600/9-75-001d — REF. NO. EPA-600/2-75-076

Development of Gas Laser System to Measure Trace Gases by Longpath Absorption Techniques:Volume I – Gas Laser System Modification for Ozone Monitoring Final Report – REF. NO. EPA-650/2-74-046a

Development of Instrumentation for Measurement of Stationary Source Aldehyde Organic Acid and Amine Emissions – REF. NO. EPA-650/2-73-010

Development of Instrumentation for Quantitative Collection of Total Atmospheric Mercury From Ambient Air-Final Report – REF. NO. EPA-650/2-73-052

Development of Low Pressure Impactor – REF. NO. EPA-650/2-74-014

Development of Method for Carcinogenic Vapor Analysis in Ambient Atmospheres – REF. NO. EPA-650/2-74-121

CURRENT SUBJECT AREA INDEX

EQUIPMENT AND TECHNIQUES

Development of Range Squared and Off-Gating Modifications for a Lidar System – REF. NO. EPA-650/2-73-040
Development of Sampling Method for Total Atmospheric Selenium --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2-74-124
Development of Sampling Procedures for Polycyclic Organic Matter and Polychlorinated Biphenyls – REF. NO. EPA-650/2-75-007
Development of Scanning Electron Microscopy for Measurement of Airborne Asbestos Concentrations – REF. NO. EPA-650/2-75-029
Development of Selective Hydrocarbon Sampling System and Field Evaluation with Conventional System – REF. NO. EPA-650/2-75-050
Development of X-Ray Fluorescence Spectroscopy in Element Analysis of Particulate Matter Phase II: Evaluation of Commerical Multiple Crystal Spectrometer Instruments – REF. NO. EPA-650/2-73-006
Development Strategy for Pollutant Dosimetry – REF. NO. EPA-600/2-76-034
Device Collection and Assay of Ambient Gases – REF. NO. EPA-650/2-74-006
Direct Determination of Metals in Air – REF. NO. EPA-650/2-73-011
Effects of Nozzle Design and Sampling Techniques on Aerosol Measurements – REF. NO. EPA-650/2-74-070
Electrochemical Analysis of Sulfidic and Amine Odorants – REF. NO. EPA-600/2-76-021
Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY '73 – REF. NO. EPA-660/2-74-078
Environmental Applications of Advanced Instrumental Analyses: Assistance Projects, FY 74 --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/4-75-004
Environmental Applications of Advanced Instrumental Analysis: Assistance Projects, FY 72 – REF. NO. EPA-660/2-73-013
Environmental Exposure System for Studying Air Pollution Damage to Materials – REF. NO. EPA-650/3-75-001
Environmental Requirements and Pollution Tolerance of Freshwater Diatoms – REF. NO. EPA-670/4-74-005
Estimation of Polychlorinated Biphenyls in the Presence of DDT-Type Compounds – REF. NO. EPA-670/4-74-004
Evaluation and Modification of Fluoride Sampling and Analytical Methods – REF. NO. EPA-650/2-73-007
Evaluation of a Computer Program for GC-MS Specific Ion Monitoring – REF. NO. EPA-660/2-74-002
Evaluation of a Microwave-Induced Plasma Spectrometer for Trace Analysis – REF. NO. EPA-660/2-73-009
Evaluation of the Correlation Spectrometer as an Area SO_2 Monitor --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/2-75-077
Evaluation of Flame Emission Determination of Phosphorus in Water – REF. NO. EPA-660/2-73-007
Evaluation of Instrumentation for Monitoring Total Mercury Emissions from Stationary Sources – REF. NO. EPA-650/2-74-039
Evaluation of Odor Measurement Techniques Volume I – Animal Rendering Industry – REF. NO. EPA-650/2-74-008a
Evaluation of Stationary Source Particulate Measurement Methods – Volume I, Portland Cement Plants – REF. NO. EPA-650/2-75-051a
Fabrication and Installation of the Stationary Source Simulator – REF. NO. EPA-650/2-75-015
Feasibility of a CW Lidar Technique for Measurement of Plume Opacity – REF. NO. EPA-650/2-73-037
Feasibility Study of the Use of Resonance Scattering for the Remote Detection of SO_2 – REF. NO. EPA-650/2-74-020
Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions – Volume I – REF. NO. EPA-650/2-75-053a
Field Evaluation of SO_2 Monitoring Systems Applied to H_2SO_4 Plant Emissions – Volume II – REF. NO. EPA-650/2-75-053b
Field Testing and Evaluation of Methods for Measuring Visibility – REF. NO. EPA-650/2-75-039
Hydrocarbon Measurement Discrepancies Among Various Analyzers Using Flame-Ionization Detectors --- Abstracted 600/9–75–001d -- – REF. NO. EPA-600/4-75-010
Implementation of a Computer Based Information System for Mass Spectral Identification – REF. NO. EPA-660/2-74-048
Improvement of Instrumentation and Methodology for Collection and Analysis of Mercury – REF. NO. EPA-650/2-75-028
In-Stack Transmissometer Evaluation and Application to Particulate Opacity Measurement --- Abstracted 600/9–75–001c --- REF. NO. EPA-650/2-75-008
In-Stack Transmissometer Measurement of Particulate Opacity and Mass Concentration --- Abstracted 600/9–75–001b --- REF. NO. EPA-650/2-74-120
Infrared Fourier Transform Spectrometry of Gas Chromatography Effluents – REF. NO. EPA-660/2-73-034
Infrared Gas Filter Correlation Instrument for In-Situ Measurement of Gaseous Pollutants – REF. NO. EPA-650/2-74-094
Infrared Sensor for the Remote Monitoring of SO_2 – REF. NO. EPA-650/2-75-041
Instrument for Simultaneous Monitoring NO_x and SO_2 in Stationary Sources – REF. NO. EPA-650/2-73-027
Instrument to Monitor CH_4, CO and CO_2 in Auto Exhaust – REF. NO. EPA-650/2-73-030
Instrumentation and Methodology for the Assay of Polynuclear Aromatic Hydrocarbons – REF. NO. EPA-650/2-74-069
Interferometric Instrumentation For Particle Size Analysis – REF. NO. EPA-650/2-73-034
Investigation of Extractive Sampling Interface Parameters – REF. NO. EPA-650/2-74-089
Investigation of Particulate Matter Monitoring Using Contact Electrification – REF. NO. EPA-650/2-75-043
Investigation of Remote Sensing Techniques for Agricultural Feedlot Pollution Detection – REF. NO. EPA-670/4-73-002
Ion-Selective Membranes Electrodes for Water Pollution Water Monitoring – REF. NO. EPA-660/2-74-079
Isolating Organic Water Pollutants: XAD Resins, Urethane Foams, Solvent Extraction --- Abstracted 600/9–75–001c --- REF. NO. EPA-660/4-75-003
Isolation of Hayfever Antigens from Short Ragweed Pollen – REF. NO. EPA-650/2-74-044
Low Cost Compact X-Ray Flourescent Analyzer for On-Site Measurement of Trace Element in Airborne Particulate Emission – REF. NO. EPA-600/4-75-002
Manual Methods for Sampling and Analysis of Particulate Emissions From Municipal Incinerators – REF. NO. EPA-650/2-73-023
Measurement of the Opacity and Mass Concentration of Particulate Emissions by Transmissometry – REF. NO. EPA-650/2-74-128
Mercury in the Environment – REF. NO. EPA-660/2-73-008
Methodology for Assignment of a Hydrocarbon Photochemical Reactivity Index for Emissions From Mobile Sources – REF. NO. EPA-650/2-75-025
Methods for Rapid and Accurate Measurement of Nitrate and Sulfate in Atmospheric Particulates – REF. NO. EPA-650/2-73-050
Monitoring Disposal-Well Systems --- Abstracted 600/9–75–001c --- REF. NO. EPA-680/4-75-008

CURRENT SUBJECT AREA INDEX

EQUIPMENT AND TECHNIQUES

Multielement Analyses of Environmental Samples by Spark Source Mass Spectrometry – REF. NO. EPA 660/2-74-001
Nonpoint-Source Pollution in Surface Waters: Associated Problems and Investigative Techniques --- Abstracted 600/9–75–001c — REF. NO. EPA 680/4-75-004
NO_2 Measuring System – REF. NO. EPA 650/2-74-059
Occurrence of Organohalides in Chlorinated Drinking Waters – REF. NO. EPA 670/4-74-008
Optimal Method for Measuring the Mass Concentration of Particulate Emissions – REF. NO. EPA 600/2-76-062
Optimization and Evaluation of a Microelectrolytic Conductivity Detector for the Gas Chromatographic Determination of Pesticide Residues – REF. NO. EPA 600/1-76-012
Particle Detector By Mechanical Impact Sensing – REF. NO. EPA 600/2-75-025
Performance Specifications for Stationary-Source Monitoring Systems for Gases and Visible Emissions – REF. NO. EPA 650/2-74-013
Proceedings of Seminar on Methodology for Monitoring the Marine Environment – REF. NO. EPA 600/4-74-004
Progress in Instrumentation and Techniques for Measurement of Air Pollutants – REF. NO. EPA 650/2-74-015
Quantitative Analysis of Airborne Asbestos by X-Ray Diffraction: Final Report on Feasibility Study – REF. NO. EPA 650/2-75-004
Quantitative Method for Toxaphene by GC-CI-MS Specific Ion Monitoring – REF. NO. EPA 600/4-76-010
Rapid Method for Determining NO_x Emissions in Flue Gases – REF. NO. EPA 600/2-76-094
Remote Measurement of Power Plant Smoke Stack Effluent Velocity – REF. NO. EPA 650/2-75-062
Remote Sensing of Air Pollution in Urban Areas – REF. NO. EPA 650/2-73-026
Remote Sensing of Pollutants – Computerized Reduction of Long-Path Absorption Data – REF. NO. EPA 650/2-74-113
Reviews of Current Literature on Analytical Methodology and Quality Control – Activities for 1973 through 1974 – REF. NO. EPA 670/4-74-003b
Sampling Interface for Quantitative Transport of Aerosols --- Abstracted 600/9–75–001b — REF. NO. EPA 650/2-74-016
Seminar Summary: Sampling and Analysis of the Various Forms of Atmospheric Lead – REF. NO. EPA 650/2-75-003
Simplified Atomic Absorption Determination of Stable Strontium in Milk and Hay – REF. NO. EPA 680/4-73-002
Simultaneous and Automated Determination of Total Phosphorous and Total Kjeldahl – REF. NO. EPA 670/4-74-002
Specific Ion Mass Spectrometric Detection for Gas Chromatographic Pesticide Analysis – REF. NO. EPA 660/2-74-004
State-of-the-Art: 1971 Instrumentation for Measurement of Particulate Emissions from Combustion Sources – REF. NO. EPA 650/2-73-022
Study of Indoor Air Quality – REF. NO. EPA 650/4-74-042
Synthesis and Purification of Carcinogenic Polynuclear Aromatic Hydrocarbon Standards – REF. NO. EPA 650/2-74-040
Synthesis of Trifluoromethylsulfur Pentafluoride (CF_3SF_5) – REF. NO. EPA 650/4-74-010
Taxonomy and Ecology of Stenonema Mayflies (Heptageniidae: Ephemeroptera) --- Abstracted 600/9–75–001a — REF. NO. EPA 670/4-74-006
Techniques for Optimizing a Quadrupole GC/MS/Computer System – REF. NO. EPA 600/4-76-004
Tissue Enzyme Assay for Chlorinated Hydrocarbon Insecticides – REF. NO. EPA 660/2-73-027
Versatile Gas Filter Correlation Spectrometer – REF. NO. EPA 600/2-75-024
Virus in Waste, Renovated, and Other Waters – 1973 Literature Abstracts – REF. NO. EPA 670/9-74-005
Viruses in Waste Renovated and other Viruses—1974 Literature Abstracts – REF. NO. EPA 670/9-75-007
Viruses in Waste Renovated and Other Viruses – 1972 Literature Abstracts – REF. NO. EPA 670/2-73-003
X-Ray Fluorescence Multispectrometer for Rapid Elemental Analysis of Particulate Pollutants – REF. NO. EPA 600/2-76-033

QUALITY ASSURANCE

Activities and Needs Related to Radioactive Standards for Environmental Measurements: A Symposium held in Washington, DC, August 21, 1973 – REF. NO. EPA 670/4-75-006
Analysis of Carbon-14 and Tritium in Reactor Stack Gas --- Abstracted 600/9–75–001d — REF. NO. EPA 600/4-75-011
Application and Procurement of Automatic Wastewater Samplers --- Abstracted 600/9–75–001a — REF. NO. EPA 670/4-75-003
Coding Manual for the Quality Assurance Performance Audit for Aerometric Data – REF. NO. EPA 600/4-76-006
Collaborative Study of EPA Methods 5,6, and 7 in Fossil Fuel-Fired Steam Generators – REF. NO. EPA 650/4-74-013
Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-025
Collaborative Study of Method for the Determination of Nitrogen Oxide Emissions from Stationary Sources (Nitric Acid Plants) – REF. NO. EPA 650/4-74-028
Collaborative Study of Method for the Determination of Particulate Matter Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-021
Collaborative Study of Method for the Determination of Particulate Matter Emissions from Stationary Sources (Municipal Incinerators) – REF. NO. EPA 650/4-74-022
Collaborative Study of Method for the Determination of Particulate Emissions from Stationary Sources (Portland Cement Plants) – REF. NO. EPA 650/4-74-029
Collaborative Study of Method for the Determination of Sulfur Dioxide Emissions From Stationary Sources (Fossil Fuel-Fired Steam Generators) – REF. NO. EPA 650/4-74-024
Collaborative Study of Method for the Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources – REF. NO. EPA 650/4-75-003
Collaborative Study of Method for Determination of Stack Gas Velocity and Volumetric Flow Rate in Conjunction with EPA Method 5 – REF. NO. EPA 650/4-74-033

CURRENT SUBJECT AREA INDEX

QUALITY ASSURANCE

Collaborative Study of Method for Stack Gas Analysis and Determination of Moisture Fraction with Use of Method 5 – REF. NO. EPA-650/4-74-026

Collaborative Study of Method 10 – Reference Method for Determination of Carbon Monoxide Emissions from Stationary Sources – Report of Testing – REF. NO. EPA-650/4-75-001

Collaborative Study of Method 104 – Reference Method for Determination of Beryllium Emission from Stationary Sources – REF. NO. EPA-650/4-74-023

Collaborative Study of Particulate Emissions Measurements by EPA Methods 2, 3, and 5 Using Paired Particulate Sampling Trains (Municipal Incinerators) – REF. NO. EPA-600/4-76-014

Collaborative Study of Reference Method for Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method) (24-hour Sampling) – REF. NO. EPA-650/4-74-027

Collaborative Study of Reference Method for Measurement of Ozone in the Atmosphere (Ozone-Ethylene Chemiluminescent Method) – REF. NO. EPA-650/4-75-016

Collaborative Test of the Chemiluminescent Method for Measurement of NO_2 in Ambient Air – REF. NO. EPA-650/4-75-013

Collaborative Test of the Continuous Colori-Metric Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-011

Collaborative Test of the TGS-ANSA Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-046

Collaborative Testing Methods for Measurements of NO_2 in Ambient Air Volume I – Report of Testing – REF. NO. EPA-650/4-74-019a

Concepts for Development of Field Usable Test Atmosphere Generating Devices – REF. NO. EPA-650/4-74-016

Development of Technical Specifications for Standard Gas-Diluent Mixtures for Use in Measurement of Mobile Source Emissions – REF. NO. EPA-650/4-74-020

Environmental Radioactivity Laboratory Intercomparison Studies Program, 1973 – 1974 – REF. NO. EPA-680/4-73-001b

Environmental Radioactivity Laboratory Intercomparison Studies Program—1975 --- Abstracted 600/9-75-001b — REF. NO. EPA-680/4-75-002b

Evaluation and Collaborative Study of Method for Visual Determination of Opacity of Emissions from Stationary Sources – REF. NO. EPA-650/4-75-009

Evaluation of a Continuous Colorimetric Method for Measurement of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-75-022

Evaluation of the Arsenite Procedure for the Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-048

Evaluation of the Proposed Ambient Air Monitoring Equivalent and Reference Methods – REF. NO. EPA-650/4-75-014

Evaluation of the Ryan's Waterproof Thermograph (Model F-30) – REF. NO. EPA-670/4-74-007

Evaluation of the Triethanolamine Procedure for the Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-031

Evaluation of Effects of NO, CO_2 and Sampling Flow Rate on Arsenite Procedure for Measurement of NO_2 in Ambient Air – REF. NO. EPA-650/4-75-019

Evaluation of Gas Phase Titration Technique as Used for Calibration of Nitrogen Dioxide Chemiluminescence Analyzers – REF. NO. EPA-650/4-75-021

Evaluation of TGS-ANSA Procedure for Determination of Nitrogen Dioxide in Ambient Air – REF. NO. EPA-650/4-74-047

Fortran Programs for Analyzing Collaborative Test Date: Part I – General Statistics --- Abstracted 600/9-75-001a — REF. NO. EPA-670/4-75-004a

Fortran Programs for Analyzing Collaborative Test Date: Part II – Scatter Plots --- Abstracted 600/9-75-001a — REF. NO. EPA-670/4-75-004b

Guide for the Evaluation of Atmospheric Analyzers – REF. NO. EPA-650/4-74-014

Guidelines for Determining Performance Characteristics of Altimated Methods for Measuring Nitrogen Dioxide and Hydrocarbons, Corrected for Methane in Ambient Air – REF. NO. EPA-650/4-74-018

Guidelines for Development of a Quality Assurance Program: Volume XII – Determination of Phosphorus in Gasoline – REF. NO. EPA-650/4-74-0051

Guidelines for Development of a Quality Assurance Program: Volume XIII – Test for Lead in Gasoline by Atomic Absorption Spectrometry – REF. NO. EPA-650/4-74-005m

Guidelines for Development of a Quality Assurance Program: Volume XIV – Screening Determination of Lead in Gasoline – REF. NO. EPA-650/4-74-005n

Guidelines for Development of a Quality Assurance Program: Volume I-Determination of Stack Gas Velocity and Volumetric Flow Rate (Type-S Pitot Tube) – REF. NO. EPA-650/4-74-005a

Guidelines for Development of a Quality Assurance Program: Volume II – Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight – REF. NO. EPA-650/4-74-005b

Guidelines for Development of a Quality Assurance Program: Volume III – Determination of Moisture in Stack Gases – REF. NO. EPA-650/4-74-005c

Guidelines for Development of a Quality Assurance Program: Volume IV – Determination of Particulate Emissions from Stationary Sources – REF. NO. EPA-650/4-74-005d

Guidelines for Development of a Quality Assurance Program: Volume VIII – Determination of CO Emissions from Stationary Sources by NDIR Spectrometry – REF. NO. EPA-650/4-74-005h

Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Quality Assurance Guidelines – REF. NO. EPA-650/4-75-024a

Guidelines for Quality Assurance Programs for Mobile Source Emissions Measurement Systems: Phase I, Light-Duty GasolinePowered Vehicles – Test Procedures – REF. NO. EPA-650/4-75-024b

Interfacing a 24-Point Analog Recorder to a Computer Controlled Telemetry Line --- Abstracted 600/9-75-001a — REF. NO. EPA-670/4-75-002

Investigation of the Orion Research Cyanide Monitor --- Abstracted 600/9-75-001b — REF. NO. EPA-670/4-75-005

CURRENT SUBJECT AREA INDEX

QUALITY ASSURANCE

Laboratory and Field Evaluations of EPA Methods 2, 6 and 7 – REF. NO. EPA-650/4-74-039
Literature Survey of Instrumental Measurements of Biochemical Oxygen Demand for Control Application, 1960–1963 – REF. NO. EPA-670/4-74-001
Measurement of Atmospheric Sulfates: Literature Search and Methods Selection – REF. NO. EPA-600/4-76-008
Measurement of Strontium-89 and Strontium-90 in Environmental Waters: A Tentative Reference Method – REF. NO. EPA-600/4-76-011
Measurement of Total Radium and Radium-226 in Environmental Waters: A Tentative Reference Method – REF. NO. EPA-600/4-76-012
Performance of the OSCO Model 1391 Water Wastewater Sampler --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/4-75-001
Performance of the Union Carbide Dissolved Oxygen Sensor – REF. NO. EPA-670/4-73-018
Preliminary Milk Report --- Abstracted 600/9-75-001c --- REF. NO. EPA-680/4-75-007
Quality Assurance Handbook for Air Pollution Measurement Systems. Volume I. Principles – REF. NO. EPA-600/9-76-005
Radiation Quality Assurance Intercomparison Studies 1974–1975 --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-014
Radioactivity Standards Distribution Program – 1975 --- Abstracted 600/9-75-001b --- REF. NO. EPA-680/4-75-002a
Radioactivity Standards Distribution Program, 1973 – 1974 – REF. NO. EPA-680/4-73-001A
Recommended Design of Sample Intake Systems for Automatic Instrumentation --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-012
Summary Report: Workshop on Ozone Measurement by the Potassium Iodide Method – REF. NO. EPA-650/4-75-007
Survey of Manual Methods of Measurements of Asbestos, Beryllium, Lead, Cadmium, Selenium, and Mercury in Stationary Source Emissions – REF. NO. EPA-650/4-74-015
Survey of Users of the EPA – Reference Method for Measurement of Non-Methane Hydrocarbons in Ambient Air – REF. NO. EPA-650/4-75-008
Technical Support Document for the Proposed Replacement Reference Method for Nitrogen Dioxide – REF. NO. EPA-600/4-75-003
Tentative Reference Method for the Measurement of Gross Alpha and Gross Beta Radioactivities in Environmental Waters --- Abstracted 600/9-75-001c --- REF. NO. EPA-680/4-75-005
Tentative Reference Method for Measurement of Tritium in Environmental Waters --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/4-75-013

SOCIOECONOMIC RESEARCH

Aesthetics in Environmental Planning – REF. NO. EPA-600/5-73-009
Aluminum as a Component of Solid Waste and a Recoverable Resource – REF. NO. EPA-670/5-74-005
Analysis of Cost Sharing Programs for Pollution Abatement of Municipal Wastewater – REF. NO. EPA-600/5-74-031
Analysis of Nonpoint-Source Pollutants in the Missouri Basin Region --- Abstracted 600/9-75-001a --- REF. NO. EPA-600/5-75-004
Assessment of Economic Impact of Air Pollutants on Vegetation in the United States, 1969 and 1971 – REF. NO. EPA-650/5-73-002
Assessment Methodology for the Environmental Impact of Water Resource Projects – REF. NO. EPA-600/5-74-016
Benefit of Water Pollution Control on Property Values – REF. NO. EPA-600/5-73-005
Bibliography of the Cat – REF. NO. EPA-650/3-74-001
Bibliography of Water Pollution Control Benefits and Costs – REF. NO. EPA-600/5-74-028
California Environmental Quality Act: Innovation in State and Local Decision making – REF. NO. EPA-600/5-74-023
Can Federal Procurement Practices be Used to Reduce Solid Waste – REF. NO. EPA-670/5-74-003
Carrying Capacity in Regional Environmental Management – REF. NO. EPA-600/5-74-021
Case Study and Business Analysis of the Scrap Industry – REF. NO. EPA-670/5-74-002
Comprehensive Management of Phosphorus Water Pollution – REF. NO. EPA-600/5-74-010
Cost Evaluation of Alternative Air Quality Strategies – REF. NO. EPA-600/5-74-003
Cost-Effectiveness of a Uniform National Sulfur Emissions Tax – REF. NO. EPA-600/5-74-009
Criteria for Regional Solid Waste Management Planning --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/5-74-006
Critique of Pollution Time Allocation in River Basin Model – REF. NO. EPA-600/5-73-007
Crop Insurance and Information Services to Control Use of Pesticides – REF. NO. EPA-600/5-74-018
Demonstration of a State Water Quality Management Information System – REF. NO. EPA-600/5-74-022
Design of Cost-Effective Water Quality Surveillance Systems – REF. NO. EPA-600/5-74-004
Development of a Decision Room For Environmental Studies – REF. NO. EPA-600/5-73-011
Development of an Economic Analytical Framework for Solid Waste Policy Analysis --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/5-75-014
Development of Predictions of Future Pollution Problems – REF. NO. EPA-600/5-74-005
Economic and Environmental Benefits from Improving Electrical Rate Structures – REF. NO. EPA-600/5-74-033
Economic and Technological Impediments to Recycling Obsolete Ferrous Solid Waste – REF. NO. EPA-670/5-73-021
Economic Damages of Air Pollution – REF. NO. EPA-600/5-74-012
Economic Damages to Household Systems From Water Supply Use – REF. NO. EPA-600/5-73-001
Economic Disincentives for Pollution Control: Legal Political and Administrative Dimensions – REF. NO. EPA-600/5-74-026
Economic Evaluation of Technical Systems for Scrap Tire Recycling – REF. NO. EPA-600/5-75-019
Economic Welfare Impacts of Urban Noise – REF. NO. EPA-600/5-76-002
Enforcement Economics in Air Pollution Control – REF. NO EPA-600/5-73-014
Environment: A Bibliography of Social Science and Related Literature – REF. NO. EPA-600/5-74-011
Environmental Base and Management Study – Atchafalaya Basin, Louisiana --- Abstracted 600/9-75-001b --- REF. NO. EPA-600/5-75-006
Environmental Impact Requirements in the States: NEPA's Offspring – REF. NO. EPA-600/5-74-006

CURRENT SUBJECT AREA INDEX

SOCIOECONOMIC RESEARCH

Environmental Indices for the Los Angeles Database --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/5–75–017
Environmental Management and Local Government – REF. NO. EPA-600/5–73–016
Environmental Management in the Malibu Watershed: Institutional Framework --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/5–75–018
Estimating Water Quality Benefits – REF. NO. EPA 600/5–74–014
Evaluation of Adjustment Assistance Program with Application for Pollution Control – REF. NO. EPA-600/5–74–029
Evaluation of Alternative Methods For Financing Municipal Waste Treatment Works – REF. NO. EPA-600/5–75–001
Evaluation of Feasibility and Economic Implication of Pricing Mechanisms in Solid Waste Management --- Abstracted 600/9–75–001a --- – REF. NO. EPA-670/5–75–001
Evaluation of Marketable Effluent Permit Systems – REF. NO. EPA-600/5–74–030
Feasibility of Emission Standards Based on Particle Size – REF. NO. EPA-600/5–74–007
Financial Incentives and Pollution Control: A Case Study --- Abstracted 600/9–75–001b --- REF. NO. EPA-600/5–75–007
Guide to Models in Governmental Planning and Operations – REF. NO. EPA-600/5–74–008
Hospital Solid Waste: An Annotated Bibliography – REF. NO. EPA-670/5–74–001
Influences of Wastewater Management on Land Use: Tahoe Basin 1950–1972 – REF. NO. EPA-600/5–74–019
Integrated Multi-media Pollution Model – REF. NO. EPA-600/5–74–020
Intermedia Aspects of Air and Water Pollution Control – REF. NO. EPA-600/5–73–003
Land Use and the Environment: An Anthology of Readings --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/5–75–009
Land Use Decision Methodology for Environmental Control --- Abstracted 600/9–75–001b --- REF. NO. EPA-600/5–75–008
Land Use Forms and the Environment – An Executive Summary --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/5–75–003
Managing the Environment – REF. NO. EPA-600/5–73–010
Minimum Standards For Quality of Life --- Abstracted 600/9–75–001c --- REF. NO. EPA-600/5–75–012
Modal Cities – REF. NO. EPA-600/5–74–027
Model for Optimal Design and Operation of Solid Waste Transfer Stations – REF. NO. EPA-670/5–74–009
Optimal Configuration of a Regional Solid Waste Management System – REF. NO. EPA-670/5–74–007
Optimization Models for Regional Public Systems – REF. NO. EPA-670/5–74–008
Outpatient Medical Costs Related to Air Pollution in the Portland, Oregon Area – REF. NO. EPA-600/5–74–017
Performance Controls for Sensitive Lands: A Practical Guide For Local Administrators --- Abstracted 600/9–75–001b --- REF. NO. EPA-600/5–75–005
Promoting Environmental Quality Through Urban Planning and Control – REF. NO. EPA-600/5–73–015
Quality of Life Concept – A Potential New Tool For DecisionMakers – REF. NO. EPA-600/5–75–011
Quality of Life Indicators in U.S. Metropolitan Areas, 1970: A Comprehensive Assessment --- Abstracted 600/9–75–001d --- REF. NO. EPA-600/5–75–016
Quantitative Method for Effluent Compliance Monitoring Resource Allocation --- Abstracted 600/9–75–001c --- REF. NO. EPA-600/5–75–015
Regional Governmental Arrangements in Metropolitan Areas: Nine Case Studies – REF. NO. EPA-600/5–74–024
Research Needs and Priorities: Water Pollution Control Benefits and Cost – Volume II – REF. NO. EPA-600/5–73–008b
Review of Environmental Impact Assessment Methodologies – REF. NO. EPA-600/5–74–002
Secondary Fiber Recovery Incentive Analysis – REF. NO. EPA-670/5–74–004
Secondary Impact of Transportation and Wastewater Investments: Review and Bibliography --- Abstracted 600/9–75–001a --- REF. NO. EPA-600/5–75–002
Secondary Impacts of Transportation and Wastewater Investments: Research Results --- Abstracted 600/9–75–001c --- REF. NO. EPA-600/5–75–013
Simulation City Approach for Preparation of Urban Area Data Bases – REF. NO. EPA 600/5–74–001
Socio-Economic Factors Affecting Demand for Municipal Collection of Household Refuse – REF. NO. EPA 670/9–73–035
State of the System (SOS) Model – REF. NO. EPA-600/5–73–013
State-of-the-Art Review: Water Pollution Control Benefits and Costs – Volume I – REF. NO. EPA-600/5–73–008a
Studies in Environment – Volume I – Summary Report – REF. NO. EPA 600/5–73–012a
Studies in Environment – Volume II – Quality of Life – REF. NO. EPA-600/5–73–012b
Studies in Environment – Volume III – Pollution and the Municipality – REF. NO. EPA 600/5–73–012c
Studies in Environment – Volume IV – Consumption Differentials and the Environment – REF. NO. EPA 600/5–73–012d
Studies in Environment – Volume V – Outdoor Recreation and the Environment – REF. NO. EPA-600/5–73–012e
Study of the Economics of Hospital Solid Waste Systems – REF. NO. EPA 670/5–73–020
Systems Simulation and Solid Waste Planning: A Case Study – REF. NO. EPA 670/5–73–012
Tritium Fractionation in Plants --- Abstracted 600/9–75–001c --- REF. NO. EPA 680/4–75–006
Use of Environmental Analyses on Wastewater Facilities by Local Government – REF. NO. EPA-600/5–74–015
Used Oil Law in the U.S. and Europe – REF. NO. EPA 600/5–74–025
Waste Automotive Lubricating Oil Reuse as a Fuel – REF. NO. EPA 600/5–74–032
Water Quality Model for a Conjunctive Surface – Groundwater System – REF. NO. EPA 600/5–74–013
WATER RESOURCES: Utilization and Conservation in the Environment --- Abstracted 600/9–75–001d --- REF. NO. EPA 600/9–75–006

ENERGY RESEARCH AND DEVELOPMENT

Bioenvironmental Impact of a Coal-Fired Power Plant – First Interim Report, Colstrip, Montana, December 1974 – REF. NO. EPA-600/3–76–002

CURRENT SUBJECT AREA INDEX

ENERGY RESEARCH AND DEVELOPMENT

Bioenvironmental Impact of a Coal-Fired Power Plant Second Interim Report, Colstrip, Montana, June 1975 – REF. NO. EPA-600/3-76-013
Comparison of Fossil and Wood Fuels – REF. NO. EPA-600/2-76-056
Comparison of Wet Chemical and Instrumental Methods for Measuring Airborne Sulfate – Interim Report – REF. NO. EPA-600/2-76-059
Conoco Dolomite Hot Gas Clean-up System – REF. NO. EPA-600/2-76-084
Control of Hydrocarbon Emissions From Petroleum Liquids --- Abstracted 600/9-75-001c --- REF. NO. EPA-600/2-75-042
Development and Trial Field Application of a Quality Assurance Program for Demonstration Projects – REF. NO. EPA-600/2-76-083
Disposal of Flue Gas Cleaning Wastes: EPA Shawnee Field Evaluation—Initial Report – REF. NO. EPA-600/2-76-070
Environmental Assessment Perspectives – REF. NO. EPA-600/2-76-069
EPA Program Status Report – Synthetic Fuels Program --- Abstracted 600/9-75-001d --- REF. NO. EPA-600/2-75-070
FIRST YEAR WORK PLAN for a Technology Assessment of Western Energy Resource Development – REF. NO. EPA-600/5-76-001
Gasification/Combined-Cycle System for Electric Power Generation – REF. NO. EPA-600/2-76-085
Guidelines for Demonstration Project Quality Assurance Programs – REF. NO. EPA-600/2-76-081
Meeting Report: Advanced Fossil Fuels Sector Group, Research Triangle Park, 13 November 1975 – REF. NO. EPA-600/9-76-006
Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume I – Executive Summary – REF. NO. EPA-600/2-76-046a
Preliminary Emissions Assessment of Conventional Stationary Combustion Systems Volume II – Final Report – REF. NO. EPA-600/2-76-046b
Quality Assurance Program for the EPA/Shawnee Wet Limestone Scrubber Demonstration – REF. NO. EPA-600/2-76-080
Sulfur Reduction Potential of U.S. Coals: A Revised Report of Investigations – REF. NO. EPA-600/2-76-091
Technical Manual for Analysis of Organic Materials in Process Streams – REF. NO. EPA-600/2-76-072

SCIENCE ADVISORY BOARD

Nitrogenous Compounds in the Environment – REF. NO. EPA-SAB-73-001

MISCELLANEOUS REPORTS

Active Research Tasks Report, Fiscal Year 1973 – REF. NO. EPA-670/9-73-056
Annual Report for Calendar Year 1972, Environmental Toxicology Research – REF. NO. EPA-670/1-73-036
Annual Report, 1972, NERC – Cincinnati – REF. NO. EPA-670/9-73-055
Bibliography of Publications and Reports of the Pacific Northwest Environmental Research Laboratory – REF. NO. EPA-660/9-74-001
Bibliography of R&D Research Reports – July 1973 – REF. NO. EPA-600/5-73-002
Environmental Research in 1973, Annual Report – REF. NO. EPA-670/9-74-001
Environmental Research Outlook, FY 1976 through 1980; Report to Congress – REF. NO. EPA-600/9-76-003
Environmental Research Publications – REF. NO. EPA-670/9-73-004
Environmental Research Publications 1971–1975 --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/9-75-001
Excerpts from Control of Infiltration and Inflow into Sewer Systems and Prevention and Correction of Excessive Infiltration and Inflow Into Sewer Systems – REF. NO. EPA-670/9-74-004
Handbook for ORD Report Specifications – REF. NO. EPA-600/9-76-001
Indexed Bibliography of Office of Research and Development Reports – Updated to January 1975 --- Abstracted 600/9-75-001a --- REF. NO. EPA-600/9-74-002
Indexed Bibliography of Office of Research and Development Reports – REF. NO. EPA-600/9-74-001
News of Environmental Research in Cincinnati – May-December, 1973 – REF. NO. EPA-670/9-74-002
News of Environmental Research in Cincinnati, January – December 1974 --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/9-75-003
NERC-Cincinnati Annual Report, 1974 --- Abstracted 600/9-75-001c --- REF. NO. EPA-670/9-75-002
OR&D ADP Workshop Proceedings No. 1 – REF. NO. EPA-600/9-75-002
OR&D Publications Summary – December 1975 – REF. NO. EPA-600/9-75-001d
OR&D Publications Summary – March 1975 – REF. NO. EPA-600/9-75-001a
OR&D Publications Summary – June 1975 – REF. NO. EPA-600/9-75-001b
OR&D Publications Summary – September 1975 – REF. NO. EPA-600/9-75-001c
Pollution Control Technology Assessment – Proceedings of an Environmental Resources Conference, May 1–3, 1974 --- Abstracted 600/9-75-001a --- REF. NO. EPA-670/9-74-006
Proceedings of First US/USSR Symposium on Comprehensive Analysis of the Environment – REF. NO. EPA-600/9-75-004
Publications Bibliography – 1975 – REF. NO. EPA-600/9-76-002
Scientific Seminar on Automotive Pollutants – REF. NO. EPA-600/9-75-003
Third U.S. — Japan Conference on Sewage Treatment Technology, Proceedings, February 12 – 16, 1974 --- Abstracted 600/9-75-001c --- – REF. NO. EPA-670/9-75-005

PERFORMING ORGANIZATION INDEX

A.P.T., Inc. Riverside, CA – **REF. NO. EPA**-650/2-74-093
A.P.T., Inc. Riverside, CA – **REF. NO. EPA**-650/2-74-112
A.P.T., Inc. Riverside, CA – **REF. NO. EPA**-650/2-74-119a
A.P.T., Inc. San Diego, CA – **REF. NO. EPA**-650/2-74-119b
A.P.T., Inc. San Diego, CA – **REF. NO. EPA**-600/2-75-018
A.P.T., Inc. San Diego, CA – **REF. NO. EPA**-600/2-75-021a
A.P.T,. Inc. Riverside, CA – **REF. NO. EPA**-650/2-73-036
Abcor, Incorporated, Walden Research Division Cambridge, MA – **REF. NO. EPA**-650/2-74-086a
Abcor, Incorporated, Walden Research Division Cambridge, MA – **REF. NO. EPA**-650/2-74-086b
Abcor, Incorporated, Walden Research Division Cambridge, MA – **REF. NO. EPA**-650/2-74-089
Abcor, Incorporated, Walden Research Division Cambridge, MA – **REF. NO. EPA**-650/2-74-105
Abcor, Incorporated, Walden Research Division Cambridge, MA – **REF. NO. EPA**-650/2-74-133
Academy of Natural Sciences of Philadelphia Philadelphia, PA – **REF. NO. EPA**-660/2-75-008
Acres American, Inc. Buffalo, NY – **REF. NO. EPA**-600/2-76-078
Acurex Corporation Mountain View, CA – **REF. NO. EPA**-600/2-75-046
Acurex Corporation Mountain View, CA – **REF. NO. EPA**-600/2-76-037
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-73-003
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-73-044
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-73-045
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-73-046
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-006
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-010
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-011
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-034
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-046
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-008
Advanced Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-013
Aero Chem Research Laboratory, Inc. Princeton, NJ – **REF. NO. EPA**-650/2-75-069
Aeronautical Research Associates of Princeton, Inc. Princeton, NJ – **REF. NO. EPA**-600/4-75-016a
Aeronautical Research Associates of Princeton, Inc. Princeton, NJ – **REF. NO. EPA**-600/4-75-016b
Aeroneutronics Ford Corporation Newport Beach, CA – **REF. NO. EPA**-600/2-75-024
Aerospace Corporation El Segundo, CA – **REF. NO. EPA**-650/2-74-037a
Aerospace Corporation Los Angeles, CA – **REF. NO. EPA**-650/2-74-051
Aerospace Corporation Los Angeles, CA – **REF. NO. EPA**-650/2-74-059
Aerospace Corporation El Segundo, CA – **REF. NO. EPA**-650/3-74-007
Aerospace Corporation El Segundo, CA – **REF. NO. EPA**-650/2-75-012
Aerospace Corporation El Segundo, CA – **REF. NO. EPA**-650/2-75-023
Aerospace Corporation El Segundo, CA – **REF. NO. EPA**-600/2-76-024
Aerospace Corporation Los Angeles, CA – **REF. NO. EPA**-600/2-76-070
Aerotherm Acurex Corporation Mountain View, CA – **REF. NO. EPA**-650/2-75-035
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA**-650/2-74-067
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA**-650/2-74-091
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA**-650/2-74-103
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA**-650/2-74-123
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA** 650/2-75-015
Aerotherm/Acurex Corporation Mountain View, CA – **REF. NO. EPA**-600/2-76-052
Air and Industrial Hygiene Laboratory Berkeley, CA – **REF. NO. EPA**-650/4-75-014
Air and Industrial Hygiene Laboratory, California State Department of Health Berkeley, CA – **REF. NO. EPA**-650/4-74-014
Air Pollution Control Division, ORD, EPA Washington, DC – **REF. NO. EPA**-600/2-74-008
Air Pollution Technology, Inc. San Diego, CA – **REF. NO. EPA**-650/2-75-058a
Airesearch Manufacturing Company of Arizona, Inc. Phoenix, AZ – **REF. NO. EPA**-650/2-75-055
Alabama A&M College Normal, AL – **REF. NO. EPA**-660/2-74-033
Alabama, University of University, AL – **REF. NO. EPA**-600/3-76-022
Alan M. Voorhees and Associates McLean, VA – **REF. NO. EPA** 600/5-74-001
Alaska, University of Fairbanks, AK – **REF. NO. EPA**-660/3-73-018
Alaska, University of Fairbanks, AK – **REF. NO. EPA**-650/4-75-012
Alaska, University of Fairbanks, AK – **REF. NO. EPA**-660/3-75-026
Allied Chemical Corporation Morristown, NJ – **REF. NO. EPA**-650/2-74-040
Allied Chemical Corporation Solvay, NY – **REF. NO. EPA**-600/2-76-053
American Crystal Sugar Company Denver, CO – **REF. NO. EPA**-660/2-74-093
American Dehydrators Association Mission, KS – **REF. NO. EPA**-650/2-74-007
American Distilling Company Pekin, IL – **REF. NO. EPA**-660/2-74-014
American Iron and Steel Institute New York, NY – **REF. NO. EPA**-650/2-74-022

PERFORMING ORGANIZATION INDEX

American Oil Company Yorktown, VA – **REF. NO. EPA**-660/2-75-025
American Public Works Association Chicago, IL – **REF. NO. EPA**-670/2-74-026
American Public Works Association Chicago, IL – **REF. NO. EPA**-670/2-74-039
American Public Works Association Chicago, IL – **REF. NO. EPA**-600/2-75-062
American Public Works Association Chicago, IL – **REF. NO. EPA**-670/2-75-011
American Society of Planning Officials Chicago, IL – **REF. NO. EPA**-600/5-75-005
American Society of Planning Officials Chicago, IL – **REF. NO. EPA**-600/5-75-009
American Standards, Inc. New Brunswick, NJ – **REF. NO. EPA**-670/2-75-002
American Water Works Association Research Foundation New York, NY – **REF. NO. EPA**-660/2-73-020
Ames Laboratory, U.S. Atomic Energy Commission, Metallurgy Division, Iowa State University Ames, IA – **REF. NO. EPA**-670/2-73-091
Amoco Oil Company Naperville, IL – **REF. NO. EPA**-650/2-75-042
Anaconda American Brass Company Waterbury, CT – **REF. NO. EPA**-670/2-74-008
Anaconda Company Waterbury, CT – **REF. NO. EPA**-670/2-75-029
Analytical Research Laboratories, Inc. Monrovia, CA – **REF. NO. EPA**-650/4-74-050
Analytical Research Laboratories, Inc. Monrovia, CA – **REF. NO. EPA**-650/2-75-050
Anderson 2000, Inc. Atlanta, GA – **REF. NO. EPA**-650/2-74-014
Anheuser Busch St. Louis, MO – **REF. NO. EPA**-660/2-74-059
Applied Technology Corporation Pittsburgh, PA – **REF. NO. EPA**-670/2-74-001
Arctic Environmental Research Laboratory, EPA Fairbanks, AK – **REF. NO. EPA**-660/2-73-005
Arctic Environmental Research Laboratory, EPA College, AK – **REF. NO. EPA** 660/2-74-070
Arctic Environmental Research Laboratory, EPA College, AK – **REF. NO. EPA**-660/3-74-008
Arctic Environmental Research Laboratory, EPA College, AK – **REF. NO. EPA**-660/3-74-009
Arctic Environmental Research Laboratory, EPA College, AK – **REF. NO. EPA**-660/3-75-019
Arctic Environmental Research Laboratory, EPA College, AK – **REF. NO. EPA**-660/3-75-020
Argonne National Laboratory Argonne, IL – **REF. NO. EPA**-650/2-74-057
Argonne National Laboratory Argonne, IL – **REF. NO. EPA**-650/2-74-104
Argonne National Laboratory Argonne, IL – **REF. NO. EPA**-600/3-76-010
Arizona, University of Tucson, AZ – **REF. NO. EPA**-600/2-75-075
Arizona, University of, Department of Entomology Tucson, AZ – **REF. NO. EPA**-600/1-76-008
Arkansas, University of, College of Engineering Fayetteville, AR – **REF. NO. EPA**-660/2-74-044
Armageddon Chemical Company Durham, NC – **REF. NO. EPA**-650/4-74-010
Arnold Research Organization, Inc. Arnold Air Force Station, TN – **REF. NO. EPA**-650/2-73-034
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-650/2-73-023
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-650/2-73-025
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-650/2-73-032
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-670/2-74-033
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-670/2-74-045
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-670/2-74-086
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-670/5-74-003
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-600/2-75-016
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-650/2-75-031
Arthur D. Little, Inc. Cambridge, MA – **REF. NO. EPA**-670/2-75-024
Atlantic Richfield Company Carson, CA – **REF. NO. EPA**-660/2-75-020
Auburn University Auburn, AL – **REF. NO. EPA**-660/3-73-005
Autotrol Corporation Milwaukee, WI – **REF. NO. EPA**-670/2-74-050
ABT Associates, Inc. Cambridge, MA – **REF. NO. EPA**-600/5-74-018
ABT Associates, Inc. Cambridge, MA – **REF. NO. EPA**-670/5-75-001
ADAPT Service Corporation Reading, MA – **REF. NO. EPA**-600/3-76-034
ARO Inc. Arnold Air Force Station, TN – **REF. NO. EPA**-650/2-74-070
Babcock and Wilson Company Alliance, OH – **REF. NO. EPA**-650/2-73-015
Babcock and Wilson Company Alliance, OH – **REF. NO. EPA**-650/2-74-002a
Babcock and Wilson Company Alliance, OH – **REF. NO. EPA**-650/2-74-002b
Bacardi Company San Juan, PR – **REF. NO. EPA**-660/2-74-074
Baird-Atomic, Inc. Bedford, MA – **REF. NO. EPA**-670/4-74-004
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-73-001
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-73-002
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-73-032
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/9-73-035
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-74-001
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/5-74-002
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/5-74-005
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/5-74-016
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-026
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-032
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-048
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-052
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-087
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-099

PERFORMING ORGANIZATION INDEX

Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-74-100
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/3-74-002
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/4-74-009
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-74-014
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-74-083
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-74-084
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/4-74-003a
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/4-74-003b
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/9-74-006
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-75-066
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-75-067
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-75-069a
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-75-073
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/4-75-009
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-75-034
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-75-038
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-75-051a
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-75-063
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/2-75-064
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/3-75-002
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-650/3-75-010
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-75-018
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-75-055
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-670/2-75-058
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-002
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-014
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-015
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-056
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-072
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-076
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-088
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/3-76-018
Battelle Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/3-76-030
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-600/5-73-004
Battelle Memorial Institute Richland, WA – **REF. NO. EPA**-670/2-73-078
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-650/2-74-011
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-650/3-74-011
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-660/2-74-004
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-660/2-74-048
Battelle Memorial Institute Richland, WA – **REF. NO. EPA**-670/2-75-012
Battelle Memorial Institute Columbus, OH – **REF. NO. EPA**-670/2-75-049
Battelle Pacific Northwest Laboratories Richland, WA – **REF. NO. EPA**-650/2-74-085a
Battelle Pacific Northwest Laboratories Richland, WA – **REF. NO. EPA**-650/2-74-085b
Battelle Pacific Northwest Laboratories Richland, WA – **REF. NO. EPA**-650/3-74-005
Battelle Pacific Northwest Laboratories Richland, WA – **REF. NO. EPA**-670/2-75-014
Battelle-Columbus Laboratories Columbus, OH – **REF. NO. EPA**-600/2-76-054
Bechtel Corporation San Francisco, CA – **REF. NO. EPA**-650/2-73-013
Bechtel Corporation San Francisco, CA – **REF. NO. EPA**-650/2-74-010
Bechtel Corporation San Francisco, CA – **REF. NO. EPA**-600/2-75-050
Bechtel Corporation San Francisco, CA – **REF. NO. EPA**-650/2-75-047
Beckman Instruments, Inc. Anaheim, CA – **REF. NO. EPA**-650/2-74-056
Beet Sugar Development Foundation Fort Collins, CO – **REF. NO. EPA**-660/2-74-028
Bemidji State College Bemidji, MN – **REF. NO. EPA**-660/2-75-026
Bendix Research Laboratories Southfield, MI – **REF. NO. EPA**-650/2-73-010
Bendix Research Laboratories Southfield, MI – **REF. NO. EPA**-650/2-74-006
Bennett College Greensboro, NC – **REF. NO. EPA**-660/2-75-016
Bennett College Greensboro, NC – **REF. NO. EPA**-600/4-76-005
Beychok, Milton R., Consulting Engineer Irvine, CA – **REF. NO. EPA**-660/2-75-011
Biospherics, Inc. Rockville, MD – **REF. NO. EPA**-600/2-75-004
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050a
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050b
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050c
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050d
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050e
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050f
Black & Veatch Consulting Engineers Kansas City, MO – **REF. NO. EPA**-670/2-75-050g
Black Hill Conservancy Sub-District Rapid City, SD – **REF. NO. EPA**-670/2-73-088
Black, Crow and Eidsness, Inc. Montgomery, AL – **REF. NO. EPA**-660/2-75-006

PERFORMING ORGANIZATION INDEX

Boating Industry Association Chicago, IL – **REF. NO. EPA**-670/2-75-064
Boeing Commercial Airplane Company Seattle, WA – **REF. NO. EPA**-660/2-73-023
Booz-Allen Applied Research, Inc. Bethesda, MD – **REF. NO. EPA**-670/2-73-013
Booz-Allen Applied Research, Inc. Bethesda, MD – **REF. NO. EPA**-670/2-73-014
Booz-Allen Applied Research, Inc. Bethesda, MD – **REF. NO. EPA**-670/2-73-015
Booz-Allen Applied Research, Inc. Bethesda, MD – **REF. NO. EPA**-670/2-73-016
Booz-Allen Public Administration Services, Inc. Washington, DC – **REF. NO. EPA**-600/5-75-011
Bowdoin College Brunswick, ME – **REF. NO. EPA**-600/5-74-029
Bowling Green State University Bowling Green, OH – **REF. NO. EPA**-670/4-74-005
Brier, Glenn W., Consultant Fort Collins, CO – **REF. NO. EPA**-650/4-75-010
Brigham Young University Provo, UT – **REF. NO. EPA**-660/2-75-007
Brown and Caldwell, Construction Engineers Walnut Creek, CA – **REF. NO. EPA**-600/2-75-038
Byrne Engineering Corporation New Orleans, LA – **REF. NO. EPA**-670/2-73-067
C. F. and T. Steel Corporation Pueblo, CO – **REF. NO. EPA**-660/2-74-050
California Air Resources Board, State of El Monte, CA – **REF. NO. EPA**-650/4-74-052
California Department of Health Berkeley, CA – **REF. NO. EPA**-650/1-75-001
California Department of Health Berkeley, CA – **REF. NO. EPA**-600/2-76-059
California Department of Health, State of Berkeley, CA – **REF. NO. EPA**-650/2-75-036
California Institute of Technology Pasadena, CA – **REF. NO. EPA**-660/3-73-010
California Polytechnic State University San Luis Obispo, CA – **REF. NO. EPA**-600/3-76-024
California Public Affairs, Center for Claremont, CA – **REF. NO. EPA**-600/5-74-006
California Public Affairs, Center for Claremont, CA – **REF. NO. EPA**-600/5-74-023
California State College Turlock, CA – **REF. NO. EPA**-650/2-75-043
California State University Los Angeles, CA – **REF. NO. EPA**-600/5-75-017
California, University of Irvaine, CA – **REF. NO. EPA**-660/3-73-015
California, University of Santa Cruz, CA – **REF. NO. EPA**-600/5-74-019
California, University of Berkeley, CA – **REF. NO. EPA**-650/4-74-004
California, University of Riverside, CA – **REF. NO. EPA**-660/2-74-054
California, University of Berkeley, CA – **REF. NO. EPA**-660/3-74-016
California, University of Davis, CA – **REF. NO. EPA**-660/3-74-034
California, University of Riverside, CA – **REF. NO. EPA**-670/2-74-005
California, University of Berkeley, CA – **REF. NO. EPA**-670/5-74-007
California, University of Berkeley, CA – **REF. NO. EPA**-670/5-74-008
California, University of Berkeley, CA – **REF. NO. EPA**-670/5-74-009
California, University of Los Angeles, CA – **REF. NO. EPA**-600/5-75-018
California, University of Santa Barbara, CA – **REF. NO. EPA**-650/3-75-006
California, University of Davis, CA – **REF. NO. EPA**-660/2-75-002
California, University of Santa Barbara, CA – **REF. NO. EPA**-670/2-75-003
California, University of Santa Barbara, CA – **REF. NO. EPA**-670/2-75-044
California, University of Santa Barbara, CA – **REF. NO. EPA**-670/2-75-059
California, University of Santa Barbara, CA – **REF. NO. EPA**-600/1-76-001
California, University of Los Angeles, CA – **REF. NO. EPA**-600/1-76-015
California, University of, Department of Entomology Riverside, CA – **REF. NO. EPA**-600/1-76-004
California, University of, Lawrence Livermore Laboratory Livermore, CA – **REF. NO. EPA**-600/1-76-016
California, University of, Sea Water Conversion Laboratory Richmond, CA – **REF. NO. EPA**-600/2-76-017
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-650/3-73-002
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-650/2-75-068
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-650/3-75-007
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-670/2-75-042
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-600/2-76-027
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-600/2-76-028
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-600/2-76-029
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-600/2-76-030
Calspan Corporation Buffalo, NY – **REF. NO. EPA**-600/2-76-031
Case Western Reserve University Cleveland, OH – **REF. NO. EPA**-600/3-76-020
Catalytic, Inc. Charlotte, NC – **REF. NO. EPA**-600/2-76-010
Center for the Environment and Man, Inc. Hartford, CT – **REF. NO. EPA**-650/4-73-001
Chase, Rosen and Wallace, Inc. Alexandria, VA – **REF. NO. EPA**-600/5-73-013
Chemical Construction Corporation New York, NY – **REF. NO. EPA**-600/2-75-057
Chemico Process Plants Company-Envirogenics System El Monte, CA – **REF. NO. EPA**-600/3-76-008
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-015
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-128
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/3-74-008
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/3-74-009
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/3-74-010
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-75-003
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-75-025
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/3-75-001

PERFORMING ORGANIZATION INDEX

Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-006
Chemistry and Physics Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-020
Chemistry and Physics Laboratory, EPA, Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-046b
Chicago, University of Chicago, IL – **REF. NO. EPA**-600/5-75-003
Chino Basin Municipal Water District Cucamonga, CA – **REF. NO. EPA**-660/2-74-034
Chuo University Tokyo, Japan – **REF. NO. EPA**-600/2-76-013a
Chuo University Tokyo, Japan, FC – **REF. NO. EPA**-600/2-76-013b
Cincinnati, University of Cincinnati, OH – **REF. NO. EPA**-650/2-75-067
City of Chino Chino, CA – **REF. NO. EPA**-670/2-75-037
City of Hollywood Hollywood, FL – **REF. NO. EPA**-600/3-76-003
Clemson University, Environmental Systems Engineering Department Clemson, NC – **REF. NO. EPA**-670/2-73-061
Colorado State University Fort Collins, CO – **REF. NO. EPA**-660/2-73-017
Colorado State University Fort Collins, CO – **REF. NO. EPA**-650/2-74-034
Colorado State University Fort Collins, CO – **REF. NO. EPA**-650/3-74-003
Colorado State University Fort Collins, CO – **REF. NO. EPA**-660/2-74-049
Colorado State University Fort Collins, CO – **REF. NO. EPA**-660/2-74-052
Colorado State University Fort Collins, CO – **REF. NO. EPA**-660/2-74-084
Colorado State University Fort Collins, CO – **REF. NO. EPA**-670/2-75-048
Colorado State University Fort Collins, CO – **REF. NO. EPA**-600/2-76-019
Colorado State University, Department of Avian Science Fort Collins, CO – **REF. NO. EPA**-670/2-73-009
Colorado, University of Boulder, CO – **REF. NO. EPA**-600/9-75-007
Columbia University, Division of Environmental Health Sciences New York City, NY – **REF. NO. EPA**-650/1-74-001
Combustion Engineering Inc. Windsor, CT – **REF. NO. EPA**-650/2-75-052
Combustion Engineering, Inc. Windsor, CT – **REF. NO. EPA**-650/2-73-005
Combustion Engineering, Inc. Windsor, CT – **REF. NO. EPA**-650/2-73-005a
Combustion Engineering, Inc. Windsor, CT – **REF. NO. EPA**-650/2-73-005b
Commonwealth of Pennsylvania Harrisburg, PA – **REF. NO. EPA**-600/5-74-022
Cone Mills Corporation Greensboro, NC – **REF. NO. EPA**-660/2-74-039
Consoer, Townsend, and Associates Milwaukee, WI – **REF. NO. EPA**-600/2-75-071
Consolidation Coal Company, Incorporated, Research Division Library, PA – **REF. NO. EPA**-650/2-73-049
Consultec, Inc. Rockville, MD – **REF. NO. EPA**-670/2-73-069
Continental Can Company Hodge, LA – **REF. NO. EPA**-660/2-74-008
Continental Can Corporation Chicago, IL – **REF. NO. EPA**-600/2-76-011
Control Data Corporation Minneapolis, MN – **REF. NO. EPA**-650/4-74-051
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-012
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-029
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-031
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-038
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-046
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-053
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-003
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-126a
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-126b
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-75-010a
Control Systems Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-75-010b
Copley International Corporation La Jolla, CA – **REF. NO. EPA**-650/5-73-001
Cornell University Ithaca, NY – **REF. NO. EPA**-660/2-74-063
Cornell University Ithaca, NY – **REF. NO. EPA**-660/2-75-019
Cottrell Environmental Systems, Inc. Division of Research-Cottrell, Inc. Bound Brook, NJ – **REF. NO. EPA**-650/2-74-053
Crown Mine Drainage Control Field Site, EPA Rivesville, WV – **REF. NO. EPA**-670/2-73-100
Crown Zellerbach Corporation Camas, WA – **REF. NO. EPA**-660/2-73-028
Culligan International Company Northbrook, IL – **REF. NO. EPA**-660/2-74-007
Curran Associates, Inc. Northampton, MA – **REF. NO. EPA**-670/2-74-037
Curran Associates, Inc. Northampton, MA – **REF. NO. EPA**-670/2-74-038
Curran Associates, Inc. Northampton, MA – **REF. NO. EPA**-670/2-74-065
Curran Associates, Inc. Northampton, MA – **REF. NO. EPA**-670/2-74-066
Curran Associates, Inc. Northampton, MA – **REF. NO. EPA**-670/2-74-068
Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA – **REF. NO. EPA**-670/2-73-054
Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA – **REF. NO. EPA**-670/2-73-081
Cyrus Wm. Rice Division, NUS Corporation Pittsburgh, PA – **REF. NO. EPA**-670/2-74-003
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-040
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-058
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-073
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-075
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-033
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-037
D.C. Pilot Plant, EPA, and D.C. Department of Environmental Services Washington, DC – **REF. NO. EPA**-670/2-73-070
Dartmouth College Hanover, NH – **REF. NO. EPA**-670/2-73-011

PERFORMING ORGANIZATION INDEX

Dartmouth College Hanover, NH – **REF. NO. EPA**-600/5-74-027
Data Metric Corporation McLean, VA – **REF. NO. EPA**-600/5-73-011
David M. Dornbusch and Company San Francisco, CA – **REF. NO. EPA**-600/5-73-005
Dayton Research Institute, University of Dayton, OH – **REF. NO. EPA**-670/2-75-033a
Dayton Research Institute, University of Dayton, OH – **REF. NO. EPA**-670/2-75-033b
Dayton Research Institute, University of Dayton, OH – **REF. NO. EPA**-670/2-75-033c
Dayton Research Institute, University of Dayton, OH – **REF. NO. EPA**-670/2-75-033d
De Laureal Engineers, Inc. New Orleans, LA – **REF. NO. EPA**-670/2-73-024
De Laureal Engineers, Inc. New Orleans, LA – **REF. NO. EPA**-670/2-73-074
Delaware River Basin Commission Trenton, NJ – **REF. NO. EPA**-660/2-73-038
DelMonte Corporation San Francisco, CA – **REF. NO. EPA**-660/2-74-092
Denver, University of Denver, CO – **REF. NO. EPA**-670/2-73-080
Detroit Metro Water Department Detroit, MI – **REF. NO. EPA**-670/2-75-020
Development Planning and Research Associates, Inc. Manhattan, KS – **REF. NO. EPA**-600/5-73-008a
Development Planning and Research Associates, Inc. Manhattan, KS – **REF. NO. EPA**-600/5-73-008b
Development Planning and Research Associates, Inc. Manhattan, KS – **REF. NO. EPA**-600/5-74-014
Development Planning and Research Associates, Inc. Manhattan, KS – **REF. NO. EPA**-600/5-74-028
DePaul University Chicago, IL – **REF. NO. EPA**-600/3-75-005
Diamond Shamrock Corporation, T. R. Evans Research Center Painesville, OH – **REF. NO. EPA**-600/2-74-006
Dominque, Szabo and Associates, Inc. Lafayette, LA – **REF. NO. EPA**-660/2-74-061
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-660/3-73-006
Dow Chemical Company Midland, MI – **REF. NO. EPA**-650/2-74-060
Dow Chemical Company Midland, MI – **REF. NO. EPA**-650/2-74-061
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-660/3-74-019
Dow Chemical Company Midland, MI – **REF. NO. EPA**-600/2-75-051
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-650/2-75-032a
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-650/2-75-032b
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-650/2-75-032c
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-650/2-75-032d
Dow Chemical Company Freeport, TX – **REF. NO. EPA**-660/2-75-021
Drexel University, Environmental Engineering Program Philadelphia, PA – **REF. NO. EPA**-670/2-73-057
Dugway Proving Ground Dugway, UT – **REF. NO. EPA**-680/4-75-003
Duke University Marine Laboratory Beaufort, NC – **REF. NO. EPA**-600/3-76-007
Duke University Medical Center Durham, NC – **REF. NO. EPA**-600/1-76-005
E.D. Appolonia Consulting Engineers, Inc. Pittsburgh, PA – **REF. NO. EPA**-670/2-73-081
East Central Oklahoma State University Ada, OK – **REF. NO. EPA**-660/2-75-003
East Central State College Ada, OK – **REF. NO. EPA**-660/2-74-024
East Tennessee State University Johnson City, TN – **REF. NO. EPA**-670/2-75-023
Eastern Michigan University Ypsilanti, MI – **REF. NO. EPA**-660/3-74-029
Eastern Municipal Water District Hemet, CA – **REF. NO. EPA**-670/2-74-077
Eastern Municipal Water District Hemet, CA – **REF. NO. EPA**-670/2-75-027
Ecotrol, Inc. Columbia, MD – **REF. NO. EPA**-670/2-74-023
Edison Water Quality Laboratory, EPA Edison, NJ – **REF. NO. EPA**-670/2-73-059
Edison Water Quality Laboratory, EPA Edison, NJ – **REF. NO. EPA**-670/2-73-077
Elson T. Killam Associates, Inc. Milburn, NJ – **REF. NO. EPA**-670/2-73-071
Energy Research and Development Administration Bartlesville, OK – **REF. NO. EPA**-600/2-76-026
Engineering Science, Inc. McLean, VA – **REF. NO. EPA**-650/2-74-077
Engineering Science, Inc. Berkeley, CA – **REF. NO. EPA**-600/2-75-033
Engineering Science, Inc. McLean, VA – **REF. NO. EPA**-650/2-75-026a
Engineering Science, Inc. McLean, VA – **REF. NO. EPA**-650/2-75-026b
Engineering Science, Inc. Berkeley, CA – **REF. NO. EPA**-670/2-75-037
Engineering Science, Inc. McLean, VA – **REF. NO. EPA**-600/2-76-048a
Engineering Science, Inc. McLean, VA – **REF. NO. EPA**-600/2-76-048b
Entropy Environmentalists, Inc. Research Triangle Park, NC – **REF. NO. EPA**-600/2-75-052
Envirex, Inc. Milwaukee, WI – **REF. NO. EPA**-660/2-73-037
Envirex, Inc. Milwaukee, WI – **REF. NO. EPA**-670/2-74-025
Enviro Plan, Inc. College Park, MD – **REF. NO. EPA**-600/2-73-004
Enviro-Systems and Research, Inc. Roanoke, VA – **REF. NO. EPA**-650/2-74-058
Enviro-Systems and Research, Inc. Roanoke, VA – **REF. NO. EPA**-650/2-74-058a
Envirogenics Company, Division of Aerojet-General Corporation El Monte, CA – **REF. NO. EPA**-660/2-74-036
Environics, Inc. Huntington Beach, CA – **REF. NO. EPA**-670/2-75-028
Environmental Control Technology Corporation Ann Arbor, MI – **REF. NO. EPA**-670/2-75-062
Environmental Dynamics, Inc. Los Angeles, CA – **REF. NO. EPA**-600/5-75-014
Environmental Impact Center Newton, MA – **REF. NO. EPA**-600/5-75-002
Environmental Impact Center Newton, MA – **REF. NO. EPA**-600/5-75-013
Environmental Law Institute Washington, DC – **REF. NO. EPA**-600/5-74-025
Environmental Law Institute Washington, DC – **REF. NO. EPA**-600/5-74-026
Environmental Measurements, Inc. San Francisco, CA – **REF. NO. EPA**-600/2-75-077

PERFORMING ORGANIZATION INDEX

Environmental Measurements, Inc. San Francisco, CA – **REF. NO. EPA**-650/2-75-005a
Environmental Measurements, Inc. San Francisco, CA – **REF. NO. EPA**-650/2-75-005b
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/3-75-014
Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/4-75-007
Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/4-75-008
Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/4-75-010
Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/4-75-011
Environmental Monitoring & Support Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/4-75-012
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/4-75-013
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/4-75-014
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/4-75-015
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/3-76-005
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/3-76-006
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/3-76-019
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/3-76-025
Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/4-76-006
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/4-76-011
Environmental Monitoring & Support Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-600/4-76-012
Environmental Monitoring & Support Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/9-76-005
Environmental Quality Systems, Inc. Rockville, MD – **REF. NO. EPA**-670/2-74-013
Environmental Quality Systems, Inc. Rockville, MD – **REF. NO. EPA**-670/2-74-097
Environmental Quality Systems, Inc. Rockville, MD – **REF. NO. EPA**-670/2-75-056
Environmental Research and Technology, Inc. Concord, MA – **REF. NO. EPA**-600/3-75-003a
Environmental Research and Technology, Inc. Concord, MA – **REF. NO. EPA**-600/3-75-003b
Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/9-76-002
Environmental Research Institute of Michigan Ypsilanti, MI – **REF. NO. EPA**-660/3-74-028
Environmental Research Laboratory, EPA Narragansett, RI – **REF. NO. EPA**-600/3-75-008
Environmental Research Laboratory, EPA Duluth, MN – **REF. NO. EPA**-600/3-75-012
Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-75-015
Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-600/3-76-001
Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-76-002
Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-76-014
Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-76-026
Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-76-037
Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-600/4-76-004
Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-600/4-76-010
Environmental Science and Engineering, Inc. Gainesville, FL – **REF. NO. EPA**-650/2-73-007
Environmental Science and Engineering, Inc. Gainesville, FL – **REF. NO. EPA**-670/2-75-063
Environmental Science Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/9-75-008
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/2-76-033
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/2-76-094
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3-76-015
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3-76-017
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3-76-029
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3-76-035
Environmental Sciences Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/4-76-001
Environmental Studies Division, EPA Washington, DC – **REF. NO. EPA**-600/5-75-011
Environmental Systems Corporation Knoxville, TN – **REF. NO. EPA**-660/2-73-011
Environmental Systems Corporation Knoxville, TN – **REF. NO. EPA**-650/2-75-060
Environmental Systems Laboratory, Inc. Sunnyvale, CA – **REF. NO. EPA**-660/2-73-003
Environmental Systems Laboratory, Inc. Sunnyvale, CA – **REF. NO. EPA**-650/4-74-043
Esso Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-73-039
Esso Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-001
Esso Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009a
Esso Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009b
Esso Research and Engineering Company Berkshire, England – **REF. NO. EPA**-650/2-74-109
Esso Research and Engineering Company Linden, NJ – **REF. NO. EPA**-670/2-74-004
Eugene Water and Electric Board Eugene, OR – **REF. NO. EPA**-660/2-74-011
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009c
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009d
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009e
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009f
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009g
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009h
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009i
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009j
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009k
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2-74-009l

PERFORMING ORGANIZATION INDEX

Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2–74–009m
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2–74–066
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2–74–069
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-600/2–75–053
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-650/2–75–054
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-600/2–76–003
Exxon Research and Engineering Company Linden, NJ – **REF. NO. EPA**-600/2–76–057
EG&G Washington Analytical Services Center, Inc. Rockville, MD – **REF. NO. EPA**-600/2–75–065
EG&G Washington Analytical Services Center, Inc. Rockville, MD – **REF. NO. EPA**-600/2–76–006
EG&G, Inc. Rockville, MD – **REF. NO. EPA**-600/2–75–027
Family and Foods, Inc. Denison, IA – **REF. NO. EPA**-660/2–74–027
Fats and Proteins Research Foundation, Inc. Des Plaines, IL – **REF. NO. EPA**-600/2–76–009
Fecker Systems, Owens-Illinois, Inc. Pittsburgh, PA – **REF. NO. EPA**-650/2–75–008
Fenix and Scisson, Inc. Tulsa, OK – **REF. NO. EPA**-600/2–75–040
Firestone Synthetic Rubber and Latex Company Lake Charles, Louisiana – **REF. NO. EPA**-660/2–73–018
Fitzsimmons Steel Company Youngstown, OH – **REF. NO. EPA**-660/2–73–032
Florida Atlantic University Boca Raton, FL – **REF. NO. EPA**-660/3–74–007
Florida Technological University Orlando, FL – **REF. NO. EPA**-670/2–74–072
Florida, University of Gainesville, FL – **REF. NO. EPA**-660/3–73–002
Florida, University of Gainesville, FL – **REF. NO. EPA**-670/2–73–063
Florida, University of Gainesville, FL – **REF. NO. EPA**-600/5–74–013
Florida, University of Gainesville, FL – **REF. NO. EPA**-660/2–74–021
Florida, University of Gainesville, FL – **REF. NO. EPA**-670/2–75–017
Florida, University of Gainesville, FL – **REF. NO. EPA**-670/2–75–022
Flow Research, Inc. Kent, WA – **REF. NO. EPA**-650/4–74–044
Flow Research, Inc. Cambridge, MA – **REF. NO. EPA**-600/4–76–007
Flynn and Emrich Company Baltimore, MD – **REF. NO. EPA**-650/2–74–004
Flynn and Emrich Company Baltimore, MD – **REF. NO. EPA**-600/2–76–004
Flynn and Emrich Company Baltimore, MD – **REF. NO. EPA**-600/2–76–071
Ford Motor Company Dearborn, MI – **REF. NO. EPA**-650/2–74–076
Fort Valley State College Fort Valley, GA – **REF. NO. EPA**-600/9–75–006
Foster D. Snell, Inc. Florham Park, NJ – **REF. NO. EPA**-670/2–73–062
Foster D. Snell, Inc. Florham Park, NJ – **REF. NO. EPA**-650/2–74–106
Foster-Miller Associates, Inc. Waltham, MA – **REF. NO. EPA**-670/2–74–019
Foster-Miller Associates, Inc. Waltham, MA – **REF. NO. EPA**-670/2–74–020
Foster-Miller Associates, Inc. Waltham, MA – **REF. NO. EPA**-670/2–74–021
Fram Corporation Pawtucket, RI – **REF. NO. EPA**-660/2–74–039
Franklin Institute Research Laboratories Philadelphia, PA – **REF. NO. EPA**-650/2–73–016
Franklin Institute Research Laboratories Philiadelphia, PA – **REF. NO. EPA**-600/2–74–005
Franklin Institute Research Laboratories Philadelphia, PA – **REF. NO. EPA**-600/2–74–007
Franklin Institute Research Laboratories Philadelphia, PA – **REF. NO. EPA**-600/2–75–005
Franklin Institute Research Laboratories Philadelphia, PA – **REF. NO. EPA**-650/2–75–029
FMC Corporation Englewood, CO – **REF. NO. EPA**-600/2–75–035
FMC Corporation Itasca, IL – **REF. NO. EPA**-670/2–75–045
FMC Corporation, Advanced Products Division San Jose, CA – **REF. NO. EPA**-670/2–74–056
Gainesville, City of Gainesville, FL – **REF. NO. EPA**-660/2–74–055
General American Transportation Corporation Niles, IL – **REF. NO. EPA**-670/2–74–043
General American Transportation Corporation Niles, IL – **REF. NO. EPA**-670/2–75–007
General Dynamics Corporation San Diego, CA – **REF. NO. EPA**-650/2–73–026
General Dynamics Corporation Groton, CT – **REF. NO. EPA**-670/2–74–071
General Electric Company Philadelphia, PA – **REF. NO. EPA**-650/2–74–029
General Electric Company Pittsfield, MA – **REF. NO. EPA**-650/2–74–046a
General Electric Company Pittsfield, MA – **REF. NO. EPA**-650/2–74–046b
General Electric Company Philadelphia, PA – **REF. NO. EPA**-660/3–74–022
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-600/4–73–001a
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-600/4–73–001b
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-600/4–74–001
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-680/4–74–002
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-680/4–74–003
General Electric Company, Center for Advanced Studies, TEMPO Santa Barbara, CA – **REF. NO. EPA**-680/4–75–008
General Electric Company, Space Sciences Laboratory Philadelphia, PA – **REF. NO. EPA**-650/2–73–040
Geomet, Inc. Rockville, MD – **REF. NO. EPA**-650/2–73–052
Geomet, Inc. Gaithersburg, MD – **REF. NO. EPA**-650/4–74–049
Geomet, Inc. Pomona, CA – **REF. NO. EPA**-650/2–75–028
Geomet, Inc. Gaithersburg, MD – **REF. NO. EPA**-650/4–75–018a
Geomet, Inc. Gaithersburg, MD – **REF. NO. EPA**-650/4–75–018b
Georgetown University Washington, DC – **REF. NO. EPA**-600/5–74–020
Georgia Institute of Technology Atlanta, GA – **REF. NO. EPA**-600/2–75–029

PERFORMING ORGANIZATION INDEX

Georgia Institute of Technology Atlanta, GA – **REF. NO. EPA**-600/2-75-043
Georgia Institute of Technology Atlanta, GA – **REF. NO. EPA**-660/2-75-017
Georgia Institute of Technology Atlanta, GA – **REF. NO. EPA**-600/2-76-090
Georgia Pacific Corporation Bellingham, WA – **REF. NO. EPA**-660/2-74-086
Georgia State University Atlanta, GA – **REF. NO. EPA**-660/3-75-001
Georgia, University of Athens, GA – **REF. NO. EPA**-660/3-73-016
Georgia, University of Athens, GA – **REF. NO. EPA**-660/3-73-022
Georgia, University of Athens, GA – **REF. NO. EPA**-660/3-73-025
Georgia, University of Athens, GA – **REF. NO. EPA**-660/2-74-064
Georgia, University of Athens, GA – **REF. NO. EPA**-660/4-75-002
Georgia, University of, Poultry Disease Research Center Athens, GA – **REF. NO. EPA**-600/1-76-003
Geraghty and Miller, Inc. Port Washington, NY – **REF. NO. EPA**-600/4-73-001a
Geraghty and Miller, Inc. Port Washington, NY – **REF. NO. EPA**-660/2-74-056
Geraghty and Miller, Inc. Port Washington, NY – **REF. NO. EPA**-660/3-75-018
Gillette Research Institute Rockville, MD – **REF. NO. EPA**-670/2-73-052
Gillette Research Institute Rockville, MD – **REF. NO. EPA**-600/2-74-003
Gold Kist, Inc. Durham, NC – **REF. NO. EPA**-660/2-74-031
Gram/Phillips Associates, Inc. Water District Calabasas, CA – **REF. NO. EPA**-660/2-73-022
Grand Rapids, City of Grand Rapids, MI – **REF. NO. EPA**-670/2-73-103
Grandview Lot Owners Association Columbus, IN – **REF. NO. EPA**-600/2-75-072
Greene County Sanitary Engineering Department Xenia, OH – **REF. NO. EPA**-600/2-75-039
Grosse Ile Laboratory, EPA Grosse Ile, MI – **REF. NO. EPA**-660/3-73-021
Grumman Aerospace Corporation Bethpage, NY – **REF. NO. EPA**-660/2-73-024
Guam, University of Agana, GU – **REF. NO. EPA**-600/3-76-027
Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL – **REF. NO. EPA**-660/3-74-013
Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL – **REF. NO. EPA**-660/3-74-024
Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL – **REF. NO. EPA**-660/3-75-001
Gulf Breeze Environmental Research Laboratory, EPA Gulf Breeze, FL – **REF. NO. EPA**-660/3-75-035
Gulf Environmental Systems Company San Diego, CA – **REF. NO. EPA**-670/2-75-009
Gulf South Research Institute Baton Rouge, LA – **REF. NO. EPA**-670/2-73-021
Gulf South Research Institute New Iberia, LA – **REF. NO. EPA**-650/2-74-068
Gulf South Research Institute New Orleans, LA – **REF. NO. EPA**-670/1-75-001
Gulf Southern Research Institute for Pharmaceutical Associates Washington, DC – **REF. NO. EPA**-670/2-74-057
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/5-74-032
GCA Corporation Bedford, MA – **REF. NO. EPA**-650/2-74-036
GCA Corporation Bedford, MA – **REF. NO. EPA**-650/2-74-043
GCA Corporation Bedford, MA – **REF. NO. EPA**-650/2-74-083
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-75-013a
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-75-054
GCA Corporation Bedford, MA – **REF. NO. EPA**-650/2-75-009
GCA Corporation Bedford, MA – **REF. NO. EPA**-650/2-75-024a
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-035
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-046a
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-046b
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-055
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-069
GCA Corporation Bedford, MA – **REF. NO. EPA**-600/2-76-077a
GCA Corporation Boston, MA – **REF. NO. EPA**-600/4-76-013
GCA/Technology Division Bedford, MA – **REF. NO. EPA**-650/2-75-059
Hancock Company Bay St. Louis, MS – **REF. NO. EPA**-670/2-74-073
Harriman Utility Board Harriman, TN – **REF. NO. EPA**-660/2-73-010
Harvard School of Public Health Boston, MA – **REF. NO. EPA**-600/2-76-020
Harvard University Cambridge, MA – **REF. NO. EPA**-600/1-75-002
Harvard University School of Public Health Boston, MA – **REF. NO. EPA**-670/2-73-017
Harvard University, Guggenheim Center for Aerospace Health and Safety, Boston, MA – **REF. NO. EPA**-650/1-74-006
Hatfield Township Municipal Authority Colmar, PA – **REF. NO. EPA**-600/2-75-030
Hazleton Laboratories Vienna, VA – **REF. NO. EPA**-600/3-76-033
Health Effects Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/1-75-003
Health Effects Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/1-76-007
Health Effects Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/1-76-011
Health Effects Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/1-76-013
Hittman Associates, Inc. Columbia, MD – **REF. NO. EPA**-600/2-73-002
Hittman Associates, Inc. Columbia, MD – **REF. NO. EPA**-660/2-73-004
Hittman Associates, Inc. Columbia, MD – **REF. NO. EPA**-660/2-73-035
Hittman Associates, Inc. Columbia, MD – **REF. NO. EPA**-660/2-74-072
Hittman Associates, Inc. Columbia, MD – **REF. NO. EPA**-660/2-74-073
Hoerner Waldorf Corporation St. Paul, MN – **REF. NO. EPA**-650/2-74-071a
Hoerner Waldorf Corporation St. Paul, MN – **REF. NO. EPA**-650/2-74-071b

PERFORMING ORGANIZATION INDEX

Holywood, City of Holywood, FL – **REF. NO. EPA**-600/2-75-049
Homer Hoyt Institute Washington, DC – **REF. NO. EPA**-600/5-73-012a
Homer Hoyt Institute Washington, DC – **REF. NO. EPA**-600/5-73-012b
Homer Hoyt Institute Washington, DC – **REF. NO. EPA**-600/5-73-012c
Homer Hoyt Institute Washington, DC – **REF. NO. EPA**-600/5-73-012d
Homer Hoyt Institute Washington, DC – **REF. NO. EPA**-600/5-73-012e
Hope College Holland, MI – **REF. NO. EPA**-660/2-73-008
Houston Research, Inc. Houston, TX – **REF. NO. EPA**-600/2-75-061
Human Resources Research Organization Columbus, GA – **REF. NO. EPA**-670/2-73-086
Human Studies Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/1-74-004
Hydrocarbon Research, Inc. Trenton, NJ – **REF. NO. EPA**-650/2-73-041
Hydrocarbon Research, Inc. Trenton, NJ – **REF. NO. EPA**-650/2-73-041a
Hydrocarbon Research, Inc. Trenton, NJ – **REF. NO. EPA**-670/2-73-066
Hydrocomp, Inc. Palo Alto, CA – **REF. NO. EPA**-660/2-74-013
Hydrocomp, Inc. Palo Alto, CA – **REF. NO. EPA**-600/2-76-043
Idaho, University of Moscow, ID – **REF. NO. EPA**-660/3-73-017
Illinois Environmental Protection Agency Chicago, IL – **REF. NO. EPA**-660/3-74-002
Illinois Institute of Technology Chicago, IL – **REF. NO. EPA**-600/2-74-009a
Illinois Institute of Technology Chicago, IL – **REF. NO. EPA**-600/2-74-009b
Illinois Institute of Technology Chicago, IL – **REF. NO. EPA**-600/2-74-009c
Illinois State Geological Survey Urbana, IL – **REF. NO. EPA**-650/2-73-044
Illinois State Geological Survey Springfield, IL – **REF. NO. EPA**-650/2-74-054
Illinois, University of Urbana, IL – **REF. NO. EPA**-670/2-73-082
Illinois, University of School of Chemical Sciences Urbana, IL – **REF. NO. EPA**-650/2-74-063
Illinois, University of Urbana, IL – **REF. NO. EPA**-670/2-74-035a
Illinois, University of Urbana, IL – **REF. NO. EPA**-670/2-74-035b
Illinois, University of Urbana, IL – **REF. NO. EPA**-670/2-74-036a
Illinois, University of Urbana, IL – **REF. NO. EPA**-670/2-74-036b
Illinois, University of Urbana, IL – **REF. NO. EPA**-600/3-75-011
Illinois, University of Urbana, IL – **REF. NO. EPA**-600/1-76-002
Illinois, University of, Department of Civil Engineering Urbana, IL – **REF. NO. EPA**-670/2-74-016
Illinois, University of, Illinois Natural History Survey Urbana, IL – **REF. NO. EPA**-660/3-74-025
Illinois, University of, Illinois State Water Survey Urbana, IL – **REF. NO. EPA**-670/2-73-029
Illinois, University of, Medical Center Chicago, IL – **REF. NO. EPA**-600/2-76-063
Independent Management Consultant on Environmental Affairs Cincinnati, OH – **REF. NO. EPA**-600/2-75-044
Industrial Bio-Test Laboratories, Inc. Northbrook, IL – **REF. NO. EPA**-670/2-75-004
Industrial Environmental Research Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/2-76-023
Industrial Nucleonics Corporation Columbus, OH – **REF. NO. EPA**-650/2-74-065
Industrial Pollution Control Division, EPA Washington, DC – **REF. NO. EPA**-600/2-75-001
Industrial Waste Treatment Research Laboratory, EPA Rivesville, WV – **REF. NO. EPA**-670/2-74-051
Industrial Waste Treatment Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-093
Institut National de Recherche Chimique Appliquee Vertle Petit, FR – **REF. NO. EPA**-600/2-75-025
Institute for Community Studies Kansas City, MO – **REF. NO. EPA**-600/5-74-024
Institute for Policy Analysis La Jolla, CA – **REF. NO. EPA**-600/5-75-010
Institute of Gas Technology, IIT Center Chicago, IL – **REF. NO. EPA**-650/2-73-004
Institute of Gas Technology, IIT Center Chicago, IL – **REF. NO. EPA**-650/2-73-033a
Institute of Gas Technology, IIT Center Chicago, IL – **REF. NO. EPA**-650/2-73-033b
Institute of Industry of Cement Building Materials Opole, Poland, FC – **REF. NO. EPA**-600/2-76-074
Institute of Paper Chemistry Appleton, WI – **REF. NO. EPA**-660/2-73-030
Institute of Paper Chemistry Appleton, WI – **REF. NO. EPA**-660/2-74-029
International City Management Association Washington, DC – **REF. NO. EPA**-600/5-73-016
International Flame Research Foundation IJmuiden, Holland, FC – **REF. NO. EPA**-600/2-76-061a
International Research and Technology Corporation Washington, DC – **REF. NO. EPA**-670/2-73-056
International Research and Technology Corporation Arlington, VA – **REF. NO. EPA**-670/2-74-078
Iowa State University Ames, IA – **REF. NO. EPA**-660/2-74-009
Iowa State University, Department of Agricultural Engineering Ames, IA – **REF. NO. EPA**-670/2-73-025
Iowa, University of Iowa City, IA – **REF. NO. EPA**-600/2-76-050
IBM Research Laboratory San Jose, CA – **REF. NO. EPA**-600/4-75-005a
IIT Research Institute Chicago, IL – **REF. NO. EPA**-650/1-73-002
IIT Research Institute Chicago, IL – **REF. NO. EPA**-650/2-74-016
IIT Research Institute Chicago, IL – **REF. NO. EPA**-650/2-74-088
IIT Research Institute Chicago, IL – **REF. NO. EPA**-650/2-74-090
IIT Research Institute Des Plaines, IL – **REF. NO. EPA**-600/2-76-009
IIT Research Institute Chicago, IL – **REF. NO. EPA**-600/2-76-016a
IIT Research Institute Chicago, IL – **REF. NO. EPA**-600/2-76-016b
IIT Research Institute Chicago, IL – **REF. NO. EPA**-600/2-76-065
IIT Research Institute Chicago, IL – **REF. NO. EPA**-600/3-76-012
IRT Corporation San Diego, CA – **REF. NO. EPA**-650/1-75-004

PERFORMING ORGANIZATION INDEX

Jack Faucett Company Chevy Chase, MD – **REF. NO. EPA**-600/5–74–033
JRB Associates, Inc. La Jolla, CA – **REF. NO. EPA**-650/4–74–006
Kaman Sciences Corporation Colorado Springs, CO – **REF. NO. EPA**-650/4–75–005
Kansas State University Manhattan, KS – **REF. NO. EPA**-650/2–74–084
Kansas State University Manhattan, KS – **REF. NO. EPA**-650/2–74–110
Kansas State University Manhattan, KS – **REF. NO. EPA**-660/2–75–010
Kansas State University Manhattan, KS – **REF. NO. EPA**-660/2–75–013
Karolinska Institute Stockholm, Sweden – **REF. NO. EPA**-600/1–75–004
Karolinska Institute Stockholm, Sweden – **REF. NO. EPA**-650/2–75–049
Kenosha, City of Kenosha, WI – **REF. NO. EPA**-670/2–75–019
Kent Cheese Company Melrose Park, IL – **REF. NO. EPA**-660/2–74–012
Kentucky, University of, Department of Entomology Lexington, KY – **REF. NO. EPA**-650/1–74–002
KLD Associates, Inc. Huntington, NY – **REF. NO. EPA**-650/2–75–018
KVB Engineering, Inc. Tustin, CA – **REF. NO. EPA**-650/2–74–078a
KVB Engineering, Inc. Tustin, CA – **REF. NO. EPA**-600/2–76–086a
Lafayette College Easton, PA – **REF. NO. EPA**-600/1–76–017
Lake Herman Development Associates, Inc. Madison, SD – **REF. NO. EPA**-660/3–74–017
Lake Tahoe Area Council South Lake Tahoe, CA – **REF. NO. EPA**-660/3–75–003
Lancy Laboratories Zelienople, PA – **REF. NO. EPA**-670/2–75–015
Langston Laboratories, Inc. Leawood, KS – **REF. NO. EPA**-650/2–75–007
Lawrence Berkeley Laboratory Berkeley, CA – **REF. NO. EPA**-650/4–74–030
Lawrence Berkeley Laboratory Berkeley, CA – **REF. NO. EPA**-650/2–75–048
Lehigh Valley Industries, Inc. Bangor, PA – **REF. NO. EPA**-600/2–75–055
Lockheed Missiles and Space Company, Inc. Sunnyvale, CA – **REF. NO. EPA**-650/3–74–004a
Lockheed Missiles and Space Company, Inc. Huntsville, AL – **REF. NO. EPA**-600/2–76–079
Los Angeles County Sanitation District Whittier, CA – **REF. NO. EPA**-600/2–75–047
Los Angeles County Sanitation District Whittier, CA – **REF. NO. EPA**-600/2–75–058
Los Angeles, County of Los Angeles, CA – **REF. NO. EPA**-600/2–76–022
Los Angles County Sanitation District Los Angeles, CA – **REF. NO. EPA**-670/2–73–043
Louisiana State University Baton Rouge, LA – **REF. NO. EPA**-600/5–75–006
Louisiana State University Baton Rouge, LA – **REF. NO. EPA**-660/3–75–001
Louisiana State University Baton Rouge, LA – **REF. NO. EPA**-670/2–75–032
Louisiana State University, Department of Chemistry Baton Rouge, LA – **REF. NO. EPA**-650/2–73–011
Louisiana State Unversity, Department of Chemical Engineering Baton Rouge, LA – **REF. NO. EPA**-670/2–73–095
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–012
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–028
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–072
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–098
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–098a
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–116
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–127
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–74–130
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-600/2–75–056
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–75–017
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–75–030
M. W. Kellogg Company Houston, TX – **REF. NO. EPA**-650/2–75–033
Maine, University of Orono, ME – **REF. NO. EPA**-650/3–75–005
Manhattan College Bronx, NY – **REF. NO. EPA**-660/3–73–009
Manhattan College Bronx, NY – **REF. NO. EPA**-660/3–75–005
Maryland, State of, Department of Health and Mental Hygiene Baltimore, MD – **REF. NO. EPA**-660/2–74–060
Maryland, State of, Water Resources Administration Annaplois, MD – **REF. NO. EPA**-660/2–73–035
Maryland, State of, Water Resources Administration Annapolis, MD – **REF. NO. EPA**-660/2–74–071
Maryland, University of College Park, MD – **REF. NO. EPA**-600/3–75–007
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-650/2–74–075
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-600/2–75–063
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-670/2–75–026a
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-670/2–75–026b
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-670/2–75–040
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-600/2–76–044a
Massachusetts Institute of Technology Cambridge, MA – **REF. NO. EPA**-600/2–76–044b
Massachusetts Institute of Technology, Chemical Engineering Department Cambridge, MA – **REF. NO. EPA**-670/2–73–089A
Massachusetts Institute of Technology, Chemical Engineering Department Cambridge, MA – **REF. NO. EPA**-670/2–73–089B
Massachusetts Institute of Technology, Department of Chemical Engineering Cambridge, MA – **REF. NO. EPA**-650/2–73–047
Massachusetts, University of Amherst, MA – **REF. NO. EPA**-670/2–75–065
Mathematica, Inc. Bethesda, MD – **REF. NO. EPA**-600/5–74–008
Medical College of Wisconsin, Department of Environmental Medicine Milwaukee, WI – **REF. NO. EPA**-650/1–73–004
Medical College of Wisconsin, Department of Environmental Medicine Milwaukee, WI – **REF. NO. EPA**-650/1–74–005
Meloy Laboratories, Inc. Springfield, VA – **REF. NO. EPA**-670/2–73–068

PERFORMING ORGANIZATION INDEX

Meloy Laboratories, Inc. Springfield, VA – **REF. NO. EPA**-650/1-75-005
Messer Associates, Inc. Silver Spring, MD – **REF. NO. EPA**-670/2-74-082
Meta Systems, Inc. Cambridge, MA – **REF. NO. EPA**-600/5-74-030
Meta Systems, Inc. Cambridge, MA – **REF. NO. EPA**-600/5-75-001
Metcalf and Eddy, Inc. Palo Alto, CA – **REF. NO. EPA**-660/2-73-006a
Metcalf and Eddy, Inc. Palo Alto, CA – **REF. NO. EPA**-660/2-73-006b
Metcalf and Eddy, Inc. Boston, MA – **REF. NO. EPA**-660/2-73-036
Metcalf and Eddy, Inc. Palo Alto, CA – **REF. NO. EPA**-670/2-74-040
Meteorology Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-008
Meteorology Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-004
Meteorology Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-017
Meteorology Research, Inc. Altadena, CA – **REF. NO. EPA**-600/2-75-074
Meteorology Research, Inc. Altadena, CA – **REF. NO. EPA**-600/2-76-062
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-001
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-002
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-74-005
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-001
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-002
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-003
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-004a
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-004b
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-005
Methods Development and Quality Assurance Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-75-006
Metropolitan Denver Sewage Disposal District No. 1 Commerce City, CO – **REF. NO. EPA**-600/2-75-035
Metropolitan Sewer Board St. Paul, MN – **REF. NO. EPA**-660/2-74-020
Miami, University of Coral Gables, FL – **REF. NO. EPA**-650/1-74-012
Miami, University of Coral Gables, FL – **REF. NO. EPA**-660/3-74-003
Miami, University of Miami, FL – **REF. NO. EPA**-650/1-75-002
Miami, University of Coral Gables, FL – **REF. NO. EPA**-600/3-76-004
Miami, University of, School of Medicine Miami, FL – **REF. NO. EPA**-650/1-74-009
Michael Baker Jr., Inc. Beaver, PA – **REF. NO. EPA**-670/2-74-009
Michigan State University East Lansing, MI – **REF. NO. EPA**-600/5-74-011
Michigan State University East Lansing, MI – **REF. NO. EPA**-660/2-74-057
Michigan State University East Lansing, MI – **REF. NO. EPA**-670/2-74-076a
Michigan State University East Lansing, MI – **REF. NO. EPA**-670/2-74-076b
Michigan Technological University Houghton, MI – **REF. NO. EPA**-660/2-74-018
Michigan Water Resources Commission Lansing, MI – **REF. NO. EPA**-600/3-76-009
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-670/2-73-049
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-650/1-74-007
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-650/2-74-096
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-660/3-75-004
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-670/2-75-046
Michigan, University of Ann Arbor, MI – **REF. NO. EPA**-670/2-75-061
Michigan, University of, College of Engineering Ann Arbor, MI – **REF. NO. EPA**-670/2-74-012
Michigan, University of, Department of Naval Architecture and Marine Engineering Ann Arbor, MI – **REF. NO. EPA**-670/2-74-054
Michigan, University of, Environmental and Water Resources Engineering Ann Arbor, MI – **REF. NO. EPA**-670/2-74-047
Middlebury College, Physics Department Middlebury, VT – **REF. NO. EPA**-670/2-74-031
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/5-74-007
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/2-74-027
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/2-74-073
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/2-74-107
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-74-019a
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-74-023
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-74-046
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-660/2-74-047
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-660/2-74-094
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-670/2-74-048
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2-75-020
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2-75-041
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/5-75-004
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/5-75-016
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/9-75-005
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/2-75-044
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/2-75-066
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-75-001
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-75-011
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-650/4-75-013
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-670/2-75-057

PERFORMING ORGANIZATION INDEX

Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2–76–001
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2–76–040
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2–76–041
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2–76–066
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/2–76–067
Midwest Research Institute Kansas City, MO – **REF. NO. EPA**-600/4–76–008
Midwest Research Institute Kansas City, Mo – **REF. NO. EPA**-600/4–76–015
Milbrew, Inc. Juneau, WI – **REF. NO. EPA**-660/2–74–025
Milwaukee, City of, Department of Public Works Milwaukee, WI – **REF. NO. EPA**-600/2–75–071
Milwaukee, Sewerage Commission of the City of Milwaukee, WI – **REF. NO. EPA**-670/2–73–050
Mineral Pigments, Corporation Beltsville, MD – **REF. NO. EPA**-670/2–74–044
Minnesota, University of St. Paul, MN – **REF. NO. EPA**-660/2–73–027
Minnesota, University of St. Paul, MN – **REF. NO. EPA**-670/2–73–051
Minnesota, University of Minneapolis, MN – **REF. NO. EPA**-600/2–75–059
Minnesota, University of St. Paul, MN – **REF. NO. EPA**-660/2–75–012
Minnesota, University of Minneapolis, MN – **REF. NO. EPA**-660/3–75–014
Minnesota, University of St. Paul, MN – **REF. NO. EPA**-660/3–75–017
Minnesota, University of, Division of Environmental Health Minneapolis, MN – **REF. NO. EPA**-670/5–73–020
Minnesota, University of, School of Public Health Minneapolis, MN – **REF. NO. EPA**-670/5–74–001
Minnesota, University of, Division of Environmental Health Minneapolis, MN – **REF. NO. EPA**-670/2–73–048
Mississippi State University Jackson, MS – **REF. NO. EPA**-660/3–75–024
Missouri, University of Columbia, MO – **REF. NO. EPA**-660/2–74–068
Missouri, University of Rolla, MO – **REF. NO. EPA**-670/2–75–053
Missouri, University of, Department of Civil Engineering Rolla, MO – **REF. NO. EPA**-670/2–73–038
Mitre Corporation Washington, DC – **REF. NO. EPA**-600/2–74–004
Mitre Corporation McLean, VA – **REF. NO. EPA**-650/2–74–030
Mitre Corporation McLean, VA – **REF. NO. EPA**-650/2–74–062
Mitre Corporation McLean, VA – **REF. NO. EPA**-650/2–74–062a
Mitre Corporation McLean, VA – **REF. NO. EPA**-600/2–75–007
Mitre Corporation McLean, VA – **REF. NO. EPA**-600/2–75–011
Mitre Corporation McLean, VA – **REF. NO. EPA**-600/2–75–037
Mitre Corporation McLean, VA – **REF. NO. EPA**-600/2–75–070
Mitre Corporation McLean, VA – **REF. NO. EPA**-600/2–76–085
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–73–027
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–021
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–041
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–055
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–082
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–117
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–74–131
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-600/2–75–045
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–75–019a
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-650/2–75–046
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-600/2–76–032a
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-600/2–76–032b
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-600/2–76–032c
Monsanto Research Corporation Dayton, OH – **REF. NO. EPA**-600/2–76–042
Montana, University of Missoula, MT – **REF. NO. EPA**-660/3–74–023
Montana, University of, Wood Chemistry Laboratory Missoula, MT – **REF. NO. EPA**-670/2–74–015
Mount Clemens, City of Mount Clemens, MI – **REF. NO. EPA**-670/2–75–010
Municipal Environmental Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/2–75–036
Municipal Environmental Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/5–75–019
Municipal Environmental Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/2–76–018
Municipal Environmental Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-600/2–76–082
Municipal Environmental Research Laboratory, EPA Edison, NJ – **REF. NO. EPA**-600/2–76–095
National Academy of Sciences Washington, DC – **REF. NO. EPA**-600/1–75–005
National Academy of Sciences Washington, DC – **REF. NO. EPA**-600/1–76–014
National Academy of Sciences Washington, DC – **REF. NO. EPA**-600/1–76–020
National Bureau of Standards Washington, DC – **REF. NO. EPA**-600/5–73–012a
National Bureau of Standards Washington, DC – **REF. NO. EPA**-600/5–74–031
National Bureau of Standards Washington, DC – **REF. NO. EPA**-600/2–76–007
National Canners Association Berkeley, CA – **REF. NO. EPA**-660/2–74–091
National Center for Resource Recovery, Inc. Washington, DC – **REF. NO. EPA**-670/2–75–034
National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3–74–011
National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3–74–012
National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3–74–018
National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3–74–024
National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3–75–032

PERFORMING ORGANIZATION INDEX

National Ecological Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-600/3-76-013
National Environmental Research Center, Analytical Quality Control Laboratory Cincinnati, OH – **REF. NO. EPA**-670/4-73-018
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-017
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-018
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-73-021
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/1-73-036
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-73-001
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-73-002
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-013
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-035
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-050
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/2-74-081
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/3-74-001
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-002
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-031
National Environmental Research Center, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-034
National Environmental Research Center, EPA Corvallis, OR – **REF. NO. EPA**-660/9-74-002
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-069
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-088
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-090
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-006
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-007
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-008
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/4-74-009
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/5-74-005
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-74-001
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-74-002
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-74-001
National Environmental Research Center, EPA Corvallis, OR – **REF. NO. EPA**-660/3-75-008
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-051
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-052
National Environmental Research Center, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-75-005
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/1-75-001
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-001
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-002b
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-003
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-004
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-006
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-007
National Environmental Research Center, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-008
National Environmental Research Center, Office of Program Coordination Cincinnati, OH – **REF. NO. EPA**-670/5-73-012
National Environmental Research Center, Office of Research and Development Cincinnati, OH – **REF. NO. EPA**-670/9-73-056
National Environmental Research Center, Program Coordination Staff Cincinnati, OH – **REF. NO. EPA**-670/1-74-001
National Environmental Research Center, Quality Assurance Branch, EPA, Las Vegas, NV – **REF. NO. EPA**-680/4-73-001A
National Environmental Research Center, Technical Information Office Cincinnati, OH – **REF. NO. EPA**-670/9-73-004
National Environmental Research Center, Technical Information Office Cincinnati, OH – **REF. NO. EPA**-670/9-73-055
National Environmental Research Center, Technical Information Staff Cincinnati, OH – **REF. NO. EPA**-670/9-74-004
National Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-75-036
National Environmental Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-75-007
National Oil Recovery Corporation Bayonne, NJ – **REF. NO. EPA**-670/2-75-068
National Research Corporation Billerica, MA – **REF. NO. EPA**-650/2-75-013a
National Steel Corporation Weirton, WV – **REF. NO. EPA**-600/2-75-014
National Steel Corporation, Weirton Steel Division Weirton, WV – **REF. NO. EPA**-650/2-73-028
National Water Quality Laboratory, EPA Duluth, MN – **REF. NO. EPA**-660/3-75-009
Naval Research Laboratory Washington, DC – **REF. NO. EPA**-650/2-73-006
Naval Research Laboratory Washington, DC – **REF. NO. EPA**-600/4-75-002
Naval Research Laboratory Washington, DC – **REF. NO. EPA**-650/2-75-004
Nebraska, University of Omaha, NB – **REF. NO. EPA**-650/1-75-003
Nevada, University of, Center for Water Resources Research Reno, NV – **REF. NO. EPA**-600/2-76-005a
Nevada, University of, Center for Water Resources Research Reno, NV – **REF. NO. EPA**-600/2-76-005b
New England Plating Company, Inc. Worcester, MA – **REF. NO. EPA**-600/2-75-028
New Hampshire, University of Durham, NH – **REF. NO. EPA**-660/3-74-031
New Jersey Zinc Company Palmerton, PA – **REF. NO. EPA**-670/2-75-016
New York State Atomic and Space Development Authority New York, NY – **REF. NO. EPA**-670/2-74-080
New York University, Chemistry Department New York, NY – **REF. NO. EPA**-650/1-74-010
New York University, School of Engineering New York City, NY – **REF. NO. EPA**-650/2-73-020
New York University, School of Engineering and Science, Department of Chemical Engineering Bronx, NY – **REF. NO. EPA**-670/2-73-023
New York, City College of New York, NY – **REF. NO. EPA**-600/2-76-021

PERFORMING ORGANIZATION INDEX

New York, State University of Buffalo, NY – **REF. NO. EPA**-660/2-74-079
New York, State University of Syracuse, NY – **REF. NO. EPA**-660/2-74-081
New York, State University of Albany, NY – **REF. NO. EPA**-650/3-75-003
New York, State University of Albany, NY – **REF. NO. EPA**-660/3-75-021
New York, University of Buffalo, NY – **REF. NO. EPA**-660/3-74-027
Noise Technology Staff, EPA Washington, DC – **REF. NO. EPA**-600/1-75-001
Noise Technology Staff, EPA Washington, DC – **REF. NO. EPA**-600/2-75-002
Noise Technology Staff, EPA Washington, DC – **REF. NO. EPA**-600/2-75-003
Noise Technology Staff, EPA Washington, DC – **REF. NO. EPA**-600/2-75-008
Noise Technology Staff, EPA Washington, DC – **REF. NO. EPA**-600/2-75-010
North American Rockwell Corporation Canoga Park, CA – **REF. NO. EPA**-670/2-73-031
North Carolina State University Raleigh, NC – **REF. NO. EPA**-660/2-73-021
North Carolina State University Raleigh, NC – **REF. NO. EPA**-650/2-74-095
North Carolina State University Raleigh, NC – **REF. NO. EPA**-660/2-74-031
North Carolina State University Raleigh, NC – **REF. NO. EPA**-600/4-75-004
North Carolina State University Raleigh, NC – **REF. NO. EPA**-650/4-75-015
North Carolina State University Raleigh, NC – **REF. NO. EPA**-660/2-75-014
North Carolina State University Raleigh, NC – **REF. NO. EPA**-600/3-76-031
North Carolina State University Raleigh, NC – **REF. NO. EPA**-600/3-76-032
North Carolina State University, Department of Animal Science Raleigh, NC – **REF. NO. EPA**-670/2-73-090
North Carolina State University, Department of Wood and Paper Sciences Raleigh, NC – **REF. NO. EPA**-650/2-74-005
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-600/5-73-015
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-670/2-73-047a
North Carolina, University of Greensboro, NC – **REF. NO. EPA**-650/3-74-008
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-650/4-74-038
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-670/2-74-032
North Carolina, University of Raleigh, NC – **REF. NO. EPA**-670/2-74-096
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-650/3-75-011
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-650/9-75-001a
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-650/9-75-001b
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-600/1-76-010a
North Carolina, University of Chapel Hill, NC – **REF. NO. EPA**-600/1-76-010b
North Carolina, University of, Center for Urban and Regional Studies Chapel Hill, NC – **REF. NO. EPA**-600/5-73-007
North Dakota, University of Grand Forks, ND – **REF. NO. EPA**-660/3-73-001
North Star Research Corporation Minneapolis, MN – **REF. NO. EPA**-660/2-73-033
Northwest Environmental Technology Laboratory, Inc. Bellevue, WA – **REF. NO. EPA**-650/2-75-039
Notre Dame, University of Notre Dame, IN – **REF. NO. EPA**-650/4-74-041
Oak Ridge National Laboratory Oak Ridge, TN – **REF. NO. EPA**-660/2-74-076
Oak Ridge National Laboratory Oak Ridge, TN – **REF. NO. EPA**-600/1-76-006
Oak Ridge National Laboratory Oak Ridge, TN – **REF. NO. EPA**-600/2-76-025
Ocean Systems, Inc. Reston, VA – **REF. NO. EPA**-670/2-74-053
Oceanic Foundation Waimanalo, HI – **REF. NO. EPA**-660/3-75-015
Office of Environmental Sciences, EPA Washington, DC – **REF. NO. EPA**-600/9-75-003
Office of Monitoring Systems, EPA Washington, DC – **REF. NO. EPA**-600/4-74-004
Office of Monitoring Systems, EPA Washington, DC – **REF. NO. EPA**-600/4-75-001
Office of Research and Development, Environmental Studies Division, EPA Washington, DC – **REF. NO. EPA**-600/5-73-010
Office of Research and Development, EPA Washington, DC – **REF. NO. EPA**-600/9-75-002
Office of Research and Development, EPA Washington, DC – **REF. NO. EPA**-600/9-75-004
Office of Research and Development, EPA Cincinnati, OH – **REF. NO. EPA**-600/9-76-001
Office of Research and Development, EPA Washington, DC – **REF. NO. EPA**-600/9-76-003
Office of Research and Development, Implementation Research Division, EPA Washington, DC – **REF. NO. EPA**-600/5-73-001
Office of Research and Development, Office of International Affairs Washington, DC – **REF. NO. EPA**-670/9-74-003
Office of Research and Development, Publications Staff, Office of Program Management, EPA Washington, DC – **REF. NO. EPA**-600/5-73-002
Office of Research and Development, Science Advisory Board, EPA Washington, DC – **REF. NO. EPA**-SAB-73-001
Ohio Agricultural Research and Development Center Wooster, OH – **REF. NO. EPA**-670/2-74-074
Ohio State University Columbus, OH – **REF. NO. EPA**-660/2-74-023
Ohio State University Columbus, OH – **REF. NO. EPA**-600/2-75-032
Ohio State University Research Foundation Columbus, OH – **REF. NO. EPA**-650/1-73-003
Ohio State University, Department of Entomology Columbus, OH – **REF. NO. EPA**-660/2-74-032
Oklahoma State University Stillwater, OK – **REF. NO. EPA**-650/2-74-080
Oklahoma State University Stillwater, OK – **REF. NO. EPA**-660/2-74-046
Oklahoma State University Stillwater, OK – **REF. NO. EPA**-660/2-75-009
Oklahoma State University Ada, OK – **REF. NO. EPA**-660/3-75-030
Oklahoma Water Resources Board Oklahoma City, OK – **REF. NO. EPA**-660/3-74-033
Oklahoma, University of Norman, OK – **REF. NO. EPA**-660/2-74-037
Oklahoma, University of Norman, OK – **REF. NO. EPA**-660/2-74-077
Oklahoma, University of Norman, OK – **REF. NO. EPA**-660/3-74-006

PERFORMING ORGANIZATION INDEX

Oklahoma, University of Norman, OK – **REF. NO. EPA**-600/5-76-001
Olson Laboratories, Inc. Anaheim, CA – **REF. NO. EPA**-650/4-75-024a
Olson Laboratories, Inc. Anaheim, CA – **REF. NO. EPA**-650/4-75-024b
Oregon State University Corvallis, OR – **REF. NO. EPA**-660/3-73-020
Oregon State University Corvallis, OR – **REF. NO. EPA**-600/5-74-017
Oregon State University Corvallis, OR – **REF. NO. EPA**-670/2-74-027
Oregon State University Corvallis, OR – **REF. NO. EPA**-660/3-75-025
Oregon State University Corvallis, OR – **REF. NO. EPA**-600/3-76-021
Oregon State University, School of Forestry Corvallis, OR – **REF. NO. EPA**-670/2-73-005
OR&D, Publications Staff, EPA Washington, DC – **REF. NO. EPA**-600/9-74-001
OR&D, Publications Staff, EPA Washington, DC – **REF. NO. EPA**-600/9-74-002
OR&D, Publications Staff, EPA Washington, DC – **REF. NO. EPA**-600/9-75-001a
OR&D, Publications Staff, EPA Washington, DC – **REF. NO. EPA**-600/9-75-001b
OR&D, Technical Information Division, EPA Washington, DC – **REF. NO. EPA**-600/9-75-001c
OR&D, Technical Information Division, EPA Washington, DC – **REF. NO. EPA**-600/9-75-001d
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036a
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036b
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036c
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036d
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036e
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036f
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036g
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036h
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036i
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036j
Pacific Environmental Services, Inc. Santa Monica, CA – **REF. NO. EPA**-600/2-76-036k
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-73-001
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-73-016
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-73-031
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-73-039
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-73-013
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-73-014
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-74-058
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-74-089
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-74-015
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-74-032
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/9-74-001
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/2-75-024
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-75-034
Pacific Northwest Environmental Research Laboratory, EPA Corvallis, OR – **REF. NO. EPA**-660/3-75-039
Pechnische Hochschule Darmstadt Hochschulfpr, GY – **REF. NO. EPA**-600/4-75-006
Pennsylvania State University University Park, PA – **REF. NO. EPA**-660/2-73-002
Pennsylvania State University University Park, PA – **REF. NO. EPA**-670/2-73-093
Pennsylvania State University University Park, PA – **REF. NO. EPA**-650/4-74-032
Pennsylvania State University University Park, PA – **REF. NO. EPA**-660/2-74-003
Pennsylvania State University University Park, PA – **REF. NO. EPA**-660/2-74-016
Pennsylvania State University University Park, PA – **REF. NO. EPA**-670/2-74-018
Pennsylvania State University University Park, PA – **REF. NO. EPA**-600/5-75-007
Pennsylvania State University University Park, PA – **REF. NO. EPA**-650/3-75-008
Pennsylvania State University, Department of Meteorology and Center for Air, Environmental Studies University Park, PA – **REF. NO. EPA**-650/4-74-045a
Pennsylvania State University, Department of Meteorology and Center for Air, Environmental Studies University Park, PA – **REF. NO. EPA**-650/4-74-045b
Pennsylvania, State of, Department of Environmental Resources Pittsburgh, PA – **REF. NO. EPA**-670/2-73-054
Pennsylvania, University of Philadelphia, PA – **REF. NO. EPA**-660/2-74-053
Pennsylvania, University of, Towne School of Civil and Mechanical Engineering Philadelphia, PA – **REF. NO. EPA**-670/2-73-072
Pesticides and Toxic Substances Effects Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/1-73-001
Philadelphia Water Department Philadelphia, PA – **REF. NO. EPA**-670/2-74-049
Philco-Ford Corporation Newport Beach, CA – **REF. NO. EPA**-650/2-74-094
Philco-Ford Corporation Newport Beach, CA – **REF. NO. EPA**-650/2-74-120
Philco-Ford Corporation Newport Beach, CA – **REF. NO. EPA**-650/4-74-036
Philco-Ford Corporation, Aeronutronic Division Newport Beach, CA – **REF. NO. EPA**-650/2-73-030
Polytechnic Institute of Brooklyn Brooklyn, NY – **REF. NO. EPA**-670/2-75-030
Port Arthur, City of Port Arthur, TX – **REF. NO. EPA**-670/2-75-060
Potato Service, Inc. Presque Isle, ME – **REF. NO. EPA**-660/2-74-088
Potomac Engineering and Surveying Petersburg, WV – **REF. NO. EPA**-670/2-74-002
Princeton, Incorporated, Aeronautical Research Associates Princeton, NJ – **REF. NO. EPA**-650/4-74-035
Process Research, Inc. Cambridge, MA – **REF. NO. EPA**-670/2-73-076

PERFORMING ORGANIZATION INDEX

Purdue Research Foundation West Lafayette, IN – **REF. NO. EPA**-600/4-76-002
Purdue University Lafayette, IN – **REF. NO. EPA**-660/2-74-043
Purdue University Lafayette, IN – **REF. NO. EPA**-660/3-74-004a
Purdue University Lafayette, IN – **REF. NO. EPA**-660/3-74-004b
Purdue University West Lafayette, IN – **REF. NO. EPA**-660/2-75-027
Purdue University West Lafayette, IN – **REF. NO. EPA**-600/1-76-012
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-74-101
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-74-115
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-74-122
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057a
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057b
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057c
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057d
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057e
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057f
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057g
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057h
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057i
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057j
PEDCo-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-650/2-75-057k
PEDCO-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-600/2-76-013a
PEDCO-Environmental Specialists, Inc. Cincinnati, OH – **REF. NO. EPA**-600/2-76-013b
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-018
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-047
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-74-048
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-007
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-019
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-021
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-022
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-023
Quality Assurance and Environmental Monitoring Laboratory, EPA Research Triangle Park, NC – **REF. NO. EPA**-650/4-75-025
Quality Assurance Branch, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/4-75-003
Quality Assurance Branch, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-005
Quality Assurance Research Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-73-001b
Quality Assurance Research Laboratory, EPA Las Vegas, NV – **REF. NO. EPA**-680/4-75-002a
QEI, Inc. Bedford, MA – **REF. NO. EPA**-600/5-76-002
Radian Corporation Austin, TX – **REF. NO. EPA**-650/2-74-024
Radian Corporation Austin, TX – **REF. NO. EPA**-650/2-74-033
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-75-042
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-75-068
Radian Corporation Austin, TX – **REF. NO. EPA**-650/2-75-006
Radian Corporation Austin, TX – **REF. NO. EPA**-650/2-75-038
Radian Corporation Austin, TX – **REF. NO. EPA**-650/2-75-065
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-012a
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-012b
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-049a
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-049b
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-051a
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-051b
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-051c
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-051e
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-051g
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-064
Radian Corporation Austin, TX – **REF. NO. EPA**-600/2-76-092
Radian Corporation Austin, TX – **REF. NO. EPA**-600/5-76-001
Ralph M. Parsons Company Los Angeles, CA – **REF. NO. EPA**-670/2-73-092
Ralph Stone and Company, Inc. Los Angeles, CA – **REF. NO. EPA**-600/5-73-003
Ralph Stone and Company, Inc. Los Angeles, CA – **REF. NO. EPA**-670/2-74-095a
Ralph Stone and Company, Inc. Los Angeles, CA – **REF. NO. EPA**-670/2-74-095b
Raytheon Company Portsmouth, RI – **REF. NO. EPA**-600/5-74-004
Raytheon Company Protsmouth, RI – **REF. NO. EPA**-670/2-74-087
Raytheon Company Sudbury, MA – **REF. NO. EPA**-650/2-75-062
Raytheon Company Portsmouth, RI – **REF. NO. EPA**-670/2-75-067
Raytheon Company, Environmental Systems Center Portsmouth, RI – **REF. NO. EPA**-670/2-73-104
Recon Systems, Inc. Princeton, NJ – **REF. NO. EPA**-670/2-74 052
Regional Science Research Institute Philadelphia, PA – **REF. NO. EPA**-670/5-74-006
Rensselaer Polytechnic Institute Troy, NY – **REF. NO. EPA**-660/3-73-003
Rensselaer Polytechnic Institute Troy, NY – **REF. NO. EPA**-670/2-74-063

PERFORMING ORGANIZATION INDEX

Research Corporation of New England Wethersfield, CT – **REF. NO. EPA**-650/2–74–008a
Research Corporation of New England Wethersfield, CT – **REF. NO. EPA**-650/4–74–042
Research Corporation of New England Wethersfield, CT – **REF. NO. EPA**-600/2–76–089a
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/5–74–009
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–74–019
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–74–097
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–74–111
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–74–118
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–74–121
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005a
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005b
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005c
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005d
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005h
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–0051
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005m
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–005n
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–012
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/4–74–016
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–75–022
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–75–076
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-650/2–75–021
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–008
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–034
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–073
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–080
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–081
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–083
Research Triangle Institute Research Triangle Park, NC – **REF. NO. EPA**-600/2–76–087
Resource Planning Institute Cambridge, MA – **REF. NO. EPA**-670/2–74–024A
Resource Planning Institute Cambridge, MA – **REF. NO. EPA**-670/2–74–024B
Resource Planning Institute Cambridge, MA – **REF. NO. EPA**-670/5–74–002
Resource Planning Institute Cambridge, MA – **REF. NO. EPA**-670/5–74–004
Rhode Island, University of Kingston, RI – **REF. NO. EPA**-600/3–75–001
Richard McLay, Consulting Engineers Essex Junction, VT – **REF. NO. EPA**-660/3–75–037
Richardson, City of Richardson, TX – **REF. NO. EPA**-670/2–73–060
Richmond, City of Richmond, VA – **REF. NO. EPA**-670/2–75–035
Riegel Textile Corporation LaFrance, SC – **REF. NO. EPA**-600/2–76–060
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–73–014
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–038
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–041
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–042
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–046
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–062
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–065
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–066
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–067
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–74–087
Robert S. Kerr Environmental Research Laboratory, EPA Ada, OK – **REF. NO. EPA**-660/2–75–022
Rocketdyne, Division of Rockwell International Corporation Canoga Park, CA – **REF. NO. EPA**-650/2–74–023
Rocketdyne, Division of Rockwell International Canoga Park, CA – **REF. NO. EPA**-650/2–74–047
Rockwell International Thousand Oaks, CA – **REF. NO. EPA**-650/3–75–004
Rockwell International Corporation Canoga Park, CA – **REF. NO. EPA**-600/2–76–038
Rockwell International Corporation Canoga Park, CA – **REF. NO. EPA**-600/2–76–039
Rockwell International Corporation Newbury Park, CA – **REF. NO. EPA**-600/3–76–011a
Rockwell International Corporation Newbury Park, CA – **REF. NO. EPA**-600/3–76–011b
Rockwell International Corporation Newbury Park, CA – **REF. NO. EPA**-600/3–76–011c
Rockwell International Corporation Thousand Oaks, CA – **REF. NO. EPA**-600/3–76–016
Rockwill International Air Monitoring Center Newbury Park, CA – **REF. NO. EPA**-650/3–75–009
Rocky Mountain Center on Environment Denver, CO – **REF. NO. EPA**-600/5–75–008
Rohnert Park, City of Rohnert Park, CA – **REF. NO. EPA**-670/2–74–075
Rosenstiel School of Marine and Atmospheric Science, University of Miami Miami, FL – **REF. NO. EPA**-660/3–7[illegible]14
Rutgers University New Brunswick, NJ – **REF. NO. EPA**-670/2–73–027
Rutgers University New Brunswick, NJ – **REF. NO. EPA**-670/2–74–094
Rutgers University New Brunswick, NJ – **REF. NO. EPA**-600/2–75–031
Rutgers University New Brunswick, NJ – **REF. NO. EPA**-600/9–76–004
Rutgers University, College of Agriculture and Environmental Science New Brunswick, NJ – **REF. NO. EPA**-670/2–73–085
RAI Research Corporation Haupage, Long Island, NY – **REF. NO. EPA**-660/2–74–035

PERFORMING ORGANIZATION INDEX

S.K. Williams Company Wauwatosa, WI – **REF. NO. EPA**-670/2-74-042
San Diego Utilities Department San Diego, CA – **REF. NO. EPA**-670/2-73-039
San Francisco, City of San Francisco, CA – **REF. NO. EPA**-670/2-75-054
San Jose Public Works Department, City of San Jose, CA – **REF. NO. EPA**-670/2-73-096
Science Applications, Inc. McLean, VA – **REF. NO. EPA**-670/2-75-066
Scientific Research Instruments Corporation Baltimore, MD – **REF. NO. EPA**-650/2-73-042
Scott Environmental Technology San Bernardino, CA – **REF. NO. EPA**-650/2-75-053a
Scott Environmental Technology San Bernardino, CA – **REF. NO. EPA**-650/2-75-053b
Scott Environmental Technology Plumsteadville, PA – **REF. NO. EPA**-650/4-75-008
Scott Research Laboratories, Inc. Plumsteadville, PA – **REF. NO. EPA**-650/4-74-020
Seattle, Municipality of Metropolitan Seattle, WA – **REF. NO. EPA**-670/2-74-022
Seattle, Municipality of Metropolitan Seattle, WA – **REF. NO. EPA**-670/2-74-061
Shelbyville, City of Shelbyville, IL – **REF. NO. EPA**-670/2-74-079
Shell Development Company Houston, TX – **REF. NO. EPA**-670/2-73-084
Shell Development Company Emeryville, CA – **REF. NO. EPA**-650/2-74-017
Skelly & Log, Engineers Harrisburg, PA – **REF. NO. EPA**-670/2-75-047
Skidaway Institute of Oceanography Savannah, GA – **REF. NO. EPA**-600/3-76-023
Smithsonian Institution Cambridge, MA – **REF. NO. EPA**-600/4-75-001
Smithsonian Tropical Research Institute Balboa, CZ – **REF. NO. EPA**-600/3-76-028
Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/5-73-021
Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-007
Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-005
Solid and Hazardous Waste Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-025
Solid Waste Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-73-001
South Dakota State University Brookinger, SD – **REF. NO. EPA**-670/4-73-002
South Dakota State University Brookings, SD – **REF. NO. EPA**-660/2-74-005
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-73-007
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-73-009
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-73-013
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-73-034
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/3-73-007
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/3-73-012
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-74-001
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-74-002
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-74-017
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-74-045
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/2-74-078
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/3-74-021
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/3-75-007
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/3-75-012
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/4-75-001
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/4-75-003
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/4-75-004
Southeast Environmental Research Laboratory, EPA Athens, GA – **REF. NO. EPA**-660/4-75-005
Southern Piedmont Conservation Research Center Watkinsville, GA – **REF. NO. EPA**-660/2-74-017
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-73-035
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-074
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-079
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-092
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-102
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-102a
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-114
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-124
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-129
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-129a
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-74-132
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-670/2-74-030
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-600/2-75-015
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-600/2-75-017
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-75-016
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-75-022
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-650/2-75-037
Southern Research Institute Birmingham, AL – **REF. NO. EPA**-670/2-75-043
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/1-74-003
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/1-74-008
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4-74-013
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4-74-021
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4-74-022

PERFORMING ORGANIZATION INDEX

Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–024
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–025
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–026
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–027
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–028
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–029
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–033
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–74–039
Southwest Research Institute Houston, TX – **REF. NO. EPA**-660/3–74–026
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-670/2–74–092
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-600/2–75–048
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/2–75–056
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–75–003
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–75–009
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-650/4–75–016
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-600/1–76–019
Southwest Research Institute San Antonio, TX – **REF. NO. EPA**-600/4–76–014
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010a
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010b
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010c
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010d
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010e
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010f
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010g
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010h
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010i
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/3–75–010j
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/6–75–001
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/6–75–002
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/6–75–003
Special Studies Staff, EPA Research Triangle Park, NC – **REF. NO. EPA**-600/6–75–004
St. Louis Sewer District, Metropolitan St. Louis, MO – **REF. NO. EPA**-670/2–73–098
St. Louis Sewer District, Metropolitan St. Louis, MO – **REF. NO. EPA**-670/2–74–062
St. Michaels, Town of St. Michaels, MD – **REF. NO. EPA**-600/2–75–060
St. Regis Paper Company Pensacola, FL – **REF. NO. EPA**-660/2–75–004
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/5–73–009
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/2–73–037
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/2–73–043
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/3–73–001
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/4–73–002
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/5–73–002
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/2–74–002
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/1–74–013
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/2–74–108
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/4–74–007
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/4–74–015
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/4–74–037
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/2–75–009
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/2–75–019
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/2–75–070
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/5–75–012
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-650/2–75–040
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-660/3–75–016
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/1–76–009
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/1–76–021
Stanford Research Institute Menlo Park, CA – **REF. NO. EPA**-600/2–76–084
Stanford Research Institute Arlington, VA – **REF. NO. EPA**-600/9–76–006
Stanford University Pacific Grove, CA – **REF. NO. EPA**-660/3–75–013
Stanford University, Department of Civil Engineering Stanford, CA – **REF. NO. EPA**-670/2–73–010
Stanley Consultants, Inc. Muscatine, IA – **REF. NO. EPA**-660/2–74–014
Subcommittee on the Toxicology of Metals Research Triangle Park, NC – **REF. NO. EPA**-600/1–76–018
Swift and Company Oakbrook, IL – **REF. NO. EPA**-660/2–73–015
Syracuse University Syracuse, NY – **REF. NO. EPA**-670/2–75–021
Syracuse University Research Corporation Syracuse, NY – **REF. NO. EPA**-670/2–73–087
Syracuse University, Department of Civil Engineering Syracuse, NY – **REF. NO. EPA**-670/2–73–065
System Development Corporation Santa Monica, CA – **REF. NO. EPA**-650/4–75–002
System Innovation and Development Corporation Rolling Hills Estates, CA – **REF. NO. EPA**-600/4–76–009
Systems Applications, Inc. San Rafael, CA – **REF. NO. EPA**-650/4–74–011

PERFORMING ORGANIZATION INDEX

Systems Applications, Inc. San Rafael, CA – **REF. NO. EPA**-650/4-74-040
Systems Applications, Inc. San Rafael, CA – **REF. NO. EPA**-650/4-75-026
Systems Control, Inc. Palo Alto, CA – **REF. NO. EPA**-600/5-75-015
Systems Control, Inc. Palo Alto, CA – **REF. NO. EPA**-670/2-75-039
Systems Technology Associates Falls Church, VA – **REF. NO. EPA**-650/2-73-009
Systems, Science and Software La Jolla, CA – **REF. NO. EPA**-650/4-74-003
SAI, Inc. LaJolla, CA – **REF. NO. EPA**-650/2-75-041
SCS Engineers Long Beach, CA – **REF. NO. EPA**-660/2-74-075
SCS Engineers Long Beach, CA – **REF. NO. EPA**-670/2-75-038
SIECO, Inc. Columbus, IN – **REF. NO. EPA**-600/2-75-072
Technical Information Staff, NERC Cincinnati, OH – **REF. NO. EPA**-670/9-75-001
Technical Information Staff, NERC Cincinnati, OH – **REF. NO. EPA**-670/9-75-002
Technical Information Staff, NERC Cincinnati, OH – **REF. NO. EPA**-670/9-75-003
Technology Service Corporation Santa Monica, CA – **REF. NO. EPA**-650/4-74-001
Teknekron, Inc. Washington, DC – **REF. NO. EPA**-600/5-74-015
Tennessee Valley Authority Chattanooga, TN – **REF. NO. EPA**-650/2-73-019a
Tennessee Valley Authority Chattanooga, TN – **REF. NO. EPA**-650/2-73-019b
Tennessee Valley Authority Chattanooga, TN – **REF. NO. EPA**-650/2-73-019c
Tennessee Valley Authority Chattanooga, TN – **REF. NO. EPA**-650/2-74-049a
Tennessee Valley Authority Muscle Shoals, TN – **REF. NO. EPA**-600/2-75-006
Tennessee Valley Authority, Office of Agricultural and Development Muscle Shoals, AL – **REF. NO. EPA**-650/2-73-051
Tetra Technology, Inc. Pasadena, CA – **REF. NO. EPA**-660/2-73-029
Texas A&M University College Station, TX – **REF. NO. EPA**-670/2-73-041
Texas A&M University College Station, TX – **REF. NO. EPA**-650/3-74-006
Texas Municipal Water District, West Central Abilene, TX – **REF. NO. EPA**-660/2-74-019
Texas Technical University Lubbock, TX – **REF. NO. EPA**-660/2-74-090
Texas, University of Austin, TX – **REF. NO. EPA**-660/2-73-025a
Texas, University of Austin, TX – **REF. NO. EPA**-660/2-73-025b
Textile Research Institute Princeton, NJ – **REF. NO. EPA**-650/2-75-002
Thermo-Systems, Inc. St. Paul, MN – **REF. NO. EPA**-650/2-73-022
Thermo-Systems, Inc. St. Paul, MN – **REF. NO. EPA**-650/4-74-017
Thiokol Corporation Brigham City, UT – **REF. NO. EPA**-670/2-74-091
Thunder Scientific Corporation Albuquerque, NM – **REF. NO. EPA**-650/2-73-008
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053A
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053B
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053C
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053D
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053E
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053F
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053G
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053H
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053I
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053J
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053K
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053L
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053M
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053N
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053O
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053P
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-670/2-73-053A-P
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-74-025
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-74-025a
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-74-031a
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-74-031b
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-74-064
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-600/2-75-012
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-75-001a
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-75-001b
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-650/2-75-020
TRW Systems Group Redondo Beach, CA – **REF. NO. EPA**-600/2-76-093b
U.S. Bureau of Mines Pittsburgh, PA – **REF. NO. EPA**-650/2-74-038
U.S. Bureau of Mines Bartlesville, OK – **REF. NO. EPA**-660/2-74-010
U.S. Bureau of Mines Bartlesville, OK – **REF. NO. EPA**-650/2-75-014
U.S. Department of the Interior Columbia, MO – **REF. NO. EPA**-600/3-75-013
U.S. Department of the Interior Washington, DC – **REF. NO. EPA**-650/2-75-011
U.S. Department of the Interior Columbia, MO – **REF. NO. EPA**-660/3-75-011
U.S. Department of the Interior Pittsburgh, PA – **REF. NO. EPA**-600/2-76-091
U.S. Department of Agriculture Washington, DC – **REF. NO. EPA**-600/2-75-026a

PERFORMING ORGANIZATION INDEX

U.S. Department of Agriculture Beltsville, MD – **REF. NO. EPA**-600/2-75-034
U.S. Department of Agriculture Kimberly, ID – **REF. NO. EPA**-600/2-75-064
U.S. Department of Agriculture Fort Collins, CO – **REF. NO. EPA**-660/2-75-015
U.S. Department of Commerce Washington, DC – **REF. NO. EPA**-650/2-74-125
U.S. Department of Commerce Asheville, NC – **REF. NO. EPA**-660/2-75-018
U.S. Department of Health, Education, and Welfare, National Institute for Occupational Safety and Health Rockville, MD – **REF. NO. EPA**-680/4-73-002
U.S. Energy Research and Development Administration Pittsburgh, PA – **REF. NO. EPA**-600/2-76-075
U.S. Fish and Wildlife Service Yankton, SD – **REF. NO. EPA**-660/3-75-010
U.S. Forest Service Fairbanks, AK – **REF. NO. EPA**-660/3-74-009
U.S. Naval Surface Weapons Center Silver Spring, MD – **REF. NO. EPA**-600/2-76-068a
U.S. Naval Surface Weapons Center Silver Spring, MD – **REF. NO. EPA**-600/2-76-068b
U.S. Plywood-Champion Paper, Inc. Hamilton, OH – **REF. NO. EPA**-660/2-73-019
U.S. Steel Corporation Decatur, GA – **REF. NO. EPA**-600/2-76-045
Ultrasystems, Inc. Irvine, CA – **REF. NO. EPA**-650/2-74-045
Union Carbide Corporation Tonawanda, NY – **REF. NO. EPA**-670/2-73-042
United Aircraft Research Laboratories East Hartford, CT – **REF. NO. EPA**-650/2-73-045
United Aircraft Research Laboratories East Hartford, CT – **REF. NO. EPA**-650/2-74-020
United Technologies Research Center Hartford, CT – **REF. NO. EPA**-600/2-75-078
United Technologies Research Center East Hartford, CT – **REF. NO. EPA**-650/2-75-061a
University City Science Center Philadelphia, PA – **REF. NO. EPA**-670/2-75-041
Urban Programs Division El Segundo, CA – **REF. NO. EPA**-650/2-73-014
Utah State University Logan, UT – **REF. NO. EPA**-660/3-73-019
Utah State University Logan, UT – **REF. NO. EPA**-600/5-74-010
Utah State University Logan, UT – **REF. NO. EPA**-600/5-74-021
Utah State University Logan, UT – **REF. NO. EPA**-660/2-75-005
Utah State University Logan, UT – **REF. NO. EPA**-670/9-75-004
Utah, University of Salt Lake City, UT – **REF. NO. EPA**-660/3-73-004
Vanderbilt University Nashville, TN – **REF. NO. EPA**-660/2-73-012
Vanderbilt University Nashville, TN – **REF. NO. EPA**-660/2-74-085
Vanderbilt University Nashville, TN – **REF. NO. EPA**-660/3-75-002
Vanderbilt University Nashville, TN – **REF. NO. EPA**-660/3-75-038
Vermont, State of, Department of Water Resources Montpelier, VT – **REF. NO. EPA**-660/2-74-040
Versar, Inc. Springfield, VA – **REF. NO. EPA**-650/4-73-003
Virginia Institute of Marine Science Gloucester Point, VA – **REF. NO. EPA**-670/2-73-099
Virginia Polytechnic Institute Blacksburg, VA – **REF. NO. EPA**-600/5-73-014
Virginia, University of Charlottesville, VA – **REF. NO. EPA**-670/2-73-030
Walden Research Division of Abcor, Inc. Cambridge, MA – **REF. NO. EPA** 650/2-73-050
Walden Research Division of Abcor, Inc. Walden, MA – **REF. NO. EPA**-650/2-74-039
Walnut Creek Central Control Sanitary District Walnut Creek, CA – **REF. NO. EPA**-670/2-73-064
Walter C. McCrone Associates, Inc. Chicago, IL – **REF. NO. EPA**-650/2-73-024
Washington Environmental Research Center, EPA Washington, DC – **REF. NO. EPA**-600/5-74-012
Washington Environmental Research Center, EPA Washington, DC – **REF. NO. EPA**-600/5-74-017
Washington Environmental Research Center, Implementation Research Division, EPA Washington, DC – **REF. NO. EPA**-600/5-73-014
Washington Environmental Research Center, Implementation Research Division, EPA Washington, DC – **REF. NO. EPA**-600/5-74-003
Washington State University Pullman, WA – **REF. NO. EPA**-660/2-74-030
Washington, University of Seattle, WA – **REF. NO. EPA**-660/3-73-005
Washington, University of Seattle, WA – **REF. NO. EPA**-660/3-73-008
Washington, University of Seattle, WA – **REF. NO. EPA**-670/2-73-034
Washington, University of Seattle, WA – **REF. NO. EPA**-660/2-74-069
Washington, University of Seattle, WA – **REF. NO. EPA**-660/2-75-028
Water Resources Engineers, Inc. Walnut Creek, CA – **REF. NO. EPA**-600/2-76-058
Water Supply Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-74-067
Water Supply Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/2-75-036
Water Supply Research Laboratory, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-75-008
Water Supply Research Laboratory, NERC, EPA Cincinnati, OH – **REF. NO. EPA**-670/9-75-006
Waterloo, University of Waterloo, Ontario, Canada – **REF. NO. EPA**-660/3-73-011
Waterloo, University of Ontario, Canada – **REF. NO. EPA**-660/2-74-082
Waterloo, University of Ontario, Canada – **REF. NO. EPA**-660/2-74-083
Waterloo, University of, Department of Chemical Engineering Waterloo, Ontario, Canada – **REF. NO. EPA**-670/2-74-059
Wave Propagation Laboratory, NOAA/ERL Boulder, CO – **REF. NO. EPA**-650/2-74-113
West Virginia University Morgantown, VA – **REF. NO. EPA**-670/2-73-022
West Virginia University Morgantown, WV – **REF. NO. EPA**-670/2-74-070
West Virginia University Morgantown, WV – **REF. NO EPA**-600/2-75-023
West Virginia University Medical Center Morgantown, WV – **REF. NO. EPA**-650/1-74-011
West Virginia University, Department of Chemical Engineering Morgantown, WV – **REF. NO. EPA**-650/2-73-003
West Virginia University, Department of Civil Engineering Morgantown, WV – **REF. NO. EPA**-670/2-73-083
Western Michigan University Kalamazoo, MI – **REF. NO. EPA**-600/3-75-009

PERFORMING ORGANIZATION INDEX

Western Potato Service, Inc. Grand Forks, ND – **REF. NO. EPA**-660/2-74-088
Westinghouse Electric Corporation, Research and Development Center Pittsburgh, PA – **REF. NO. EPA**-670/2-74-017
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-73-048a
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-73-048b
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-73-048c
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-73-048d
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-670/2-73-006
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-75-027a
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-75-027b
Westinghouse Research Laboratories Pittsburgh, PA – **REF. NO. EPA**-650/2-75-027c
Wilkes College Wilkes Barre, PA – **REF. NO. EPA**-670/2-75-006
Winter Garden Citrus Products Cooperative Winter Garden, FL – **REF. NO. EPA**-660/2-75-001
Wisconsin Electric Power Company Milwaukee, WI – **REF. NO. EPA**-650/2-75-045
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-73-023
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-73-024
Wisconsin, University of Milwaukee, WI – **REF. NO. EPA**-670/2-73-079
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/2-74-006
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-74-020
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-75-006
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-75-022
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-75-027
Wisconsin, University of Madison, WI – **REF. NO. EPA**-660/3-75-033
Wisconsin, University of Milwaukee, WI – **REF. NO. EPA**-600/3-76-036
Worcester Polytechnic Institute Worcester, MA – **REF. NO. EPA**-670/2-75-031
Worthington Biochemical Corporation Freehole, NJ – **REF. NO. EPA**-650/2-74-044
WAPORA, Inc. Washington, DC – **REF. NO. EPA**-660/2-73-026
York Research Corporation Stamford, CT – **REF. NO. EPA**-600/2-76-047

PERSONAL AUTHOR INDEX

Aamodt, P. L.	EPA-600/2–75–040
Agnew, R. W.	EPA-670/2–75–019
Ahearn, D. G.	EPA-660/3–75–001
Akin, E. W.	EPA-600/1–75–003
Akinbami, S. O.	EPA-670/2–73–042
Albrecht, O. W.	EPA-670/5–73–021
Albrecht, R. M.	EPA-650/1–74–001
Albred, E. R.	EPA-670/2–73–051
Aleti, A.	EPA-600/5–75–004
Alexander, V.	EPA-660/3–75–026
Alford, A. L.	EPA-660/2–73–013
Alford, A. L.	EPA-660/2–74–002
Alford, A. L.	EPA-660/2–74–078
Alford, A. L.	EPA-660/4–75–004
Alger, G. R.	EPA-660/2–74–018
Allan, G. G.	EPA-670/2–73–034
Allen, C. M.	EPA-600/2–76–056
Allen, R. J.	EPA-650/4–73–002
Alley, E. G.	EPA-660/3–75–024
Allsap, J. R.	EPA-600/2–76–026
Allwood, J. K.	EPA-600/5–73–008b
Alspaugh, T. A.	EPA-660/2–74–039
Alter, H.	EPA-670/2–75–034
Amato, W. S.	EPA-600/2–76–053
Ananth, K. P.	EPA-600/2–76–040
Ananth, K. P.	EPA-600/2–76–067
Ananth, K. P.	EPA-600/2–76–066
Anasoulis, R. F.	EPA-650/2–73–045
Anastas, M. Y.	EPA-600/2–75–073
Anastas, M. Y.	EPA-600/2–76–014
Anastas, M. Y.	EPA-670/2–74–083
Andersen, J. C.	EPA-600/5–74–010
Andersen, J. R.	EPA-660/2–74–005
Andersland, O. B.	EPA-670/2–74–076b
Andersland, O. B.	EPA-670/2–74–076a
Anderson, D. P.	EPA-600/2–76–035
Anderson, G. E.	EPA-650/4–73–001
Anderson, J. L.	EPA-660/2–73–012
Ando, J.	EPA-600/2–76–013a
Ando, J.	EPA-600/2–76–013b
Andrew, R. W.	EPA-600/3–75–012
Andrews, J. F.	EPA-670/2–73–061
Antoni, C. M.	EPA-670/2–73–065
Appel, B. R.	EPA-600/2–76–059
Appleman, R.	EPA-660/3–73–015
Aresco, S. J.	EPA-650/2–74–030
Arkle Jr, T.	EPA-670/2–74–070
Armento, W. J.	EPA-650/2–74–002a
Armstrong, D. E.	EPA-660/3–75–006
Armstrong, T. A.	EPA-670/2–74–076a
Arthur, J. W.	EPA-600/3–75–012
Atkinson, S. E.	EPA-600/5–74–003
Avery, C.	EPA-600/5–75–017
Axworthy, A. E.	EPA-600/2–76–039
Ayars, J.	EPA-660/2–74–084
Azarraga, L. V.	EPA-660/2–73–034
Babcock Jr., L. R.	EPA-600/2–76–063
Badgley, M. D.	EPA-600/5–75–012
Bagley, M.	EPA-600/5–73–009
Baier, R. E.	EPA-600/2–76–028
Baier, R. E.	EPA-600/2–76–031
Baier, R. E.	EPA-670/2–75–042
Baierl, K. W.	EPA-660/2–73–030
Bailey, G. W.	EPA-660/2–74–017
Baillod, C. R.	EPA-660/2–74–018
Baity Jr., F. W.	EPA-650/2–74–046b
Baker, D. A.	EPA-660/2–74–027
Baker, D. R.	EPA-660/2–75–009
Ball, D. A.	EPA-600/2–76–056
Ball, G.	EPA-670/2–73–049
Ballantyne, W. E.	EPA-600/2–75–073
Ballay, J. M.	EPA-660/2–73–002
Balouskus, R. A.	EPA-670/2–74–023
Bandyopadhyay, B.	EPA-600/2–76–053
Bannerman, R. T.	EPA-660/3–75–006
Bar-Shalom, Y.	EPA-600/5–75–015
Baratz, B.	EPA-660/2–73–026
Barbour, J. F.	EPA-670/2–74–027
Barile, R. G.	EPA-660/2–75–027
Barker, J. C.	EPA-660/2–74–064
Barnes, H. M.	EPA-600/2–76–094
Barnett, A. P.	EPA-660/2–74–017
Barnett, Jr., J. T.	EPA-660/3–75–007
Barrager, S. M.	EPA-600/5–73–005
Barrett, J. J.	EPA-670/2–74–030
Barrett, R. E.	EPA-600/2–75–067
Barrett, R. E.	EPA-600/2–75–069a
Barrett, R. E.	EPA-600/2–76–088
Barry, J. P.	EPA-670/2–75–028
Bartelds, H.	EPA-600/2–76–061a
Barth, J.	EPA-680/4–73–002
Bartholomew, E.	EPA-600/5–75–011
Bartok, W.	EPA-600/2–75–053
Barton, J. R.	EPA-660/2–75–007
Bartsch, A. F.	EPA-660/9–74–002
Basch, R. E.	EPA-600/3–76–009
Bascom, S. B.	EPA-600/5–75–002
Bascom, S. E.	EPA-600/5–75–013
Bass, A.	EPA-600/4–76–007
Bass, T. D.	EPA-670/2–74–048
Bateman, R. L.	EPA-600/2–76–005b
Bateman, R. L.	EPA-600/2–76–005a
Bateman, T. W.	EPA-660/2–74–063
Battista, C. A.	EPA-670/2–73–066
Baugham, G. L.	EPA-660/3–73–012
Baughman, G. L.	EPA-660/3–75–007
Baumgardner Jr., R. E.	EPA-650/2–74–046b
Becker, B. C.	EPA-660/2–73–035
Becker, B. C.	EPA-660/2–74–073
Becker, E. R.	EPA-670/2–73–096
Beckers, C. V.	EPA-600/5–74–004
Beckman, J. E.	EPA-670/2–75–009
Beeton, A. M.	EPA-600/3–76–036
Behrens, H. C.	EPA-660/2–75–021
Bella, D. A.	EPA-660/3–75–025
Bellar, T. A.	EPA-670/4–74–009
Bellar, T. A.	EPA-670/4–74–008
Bellegia, F. L.	EPA-600/2–76–008
Benarie, M.	EPA-600/2–75–025
Bender, D. F.	EPA-670/2–73–001
Benedict, B. A.	EPA-660/2–73–012
Benedict, B. A.	EPA-660/3–75–038
Benedict, H. M.	EPA-650/5–73–002
Bennet, E. R.	EPA-600/9–75–007
Bennet, S. M.	EPA-670/2–75–008
Bennett, R. L.	EPA-600/2–76–033
Bennett, R. S.	EPA-660/2–74–049
Bennett, R. S.	EPA-660/2–74–052
Bennett, R. S.	EPA-660/2–74–084
Benson, A. L.	EPA-650/2–73–032
Benson, S. W.	EPA-600/2–75–019
Berg, G.	EPA-670/2–73–003

PERSONAL AUTHOR INDEX

Berg, G.	EPA-670/9-75-005
Berg, G.	EPA-670/9-75-007
Bergman, F. J.	EPA-600/2-75-041
Bergman, F. J.	EPA-600/4-76-008
Bergman, F. J.	EPA-600/4-76-015
Bergmann, E. P.	EPA-600/2-76-016a
Bergmann, E. P.	EPA-600/2 76-016b
Bergstedt, L.	EPA-660/3-75-014
Bergstrom Jr., R.W.	EPA-600/4-76-002
Berkau, E. E.	EPA-600/2-75-010
Berkau, E. E.	EPA-650/2-73-029
Berkau, E. E.	EPA-650/2-73-031
Berkau, E. E.	EPA-650/2-74-003
Berkowitz, J. B.	EPA-670/2-75-024
Berman, E.	EPA-600/1-76-007
Bernstein, S.	EPA-660/2-74-025
Berry, B. J.	EPA-600/5-75-003
Berry, E. C.	EPA-660/3-75-019
Berry, J. W.	EPA-660/2-74-011
Bertocci, U.	EPA-600/2-76-007
Bevege, E.	EPA-670/2-75-009
Beychok, M. R.	EPA-660/2-75-011
Beyers, R. J.	EPA-660/3-73-025
Bhagwat, A.	EPA-660/3-73-005
Bhatt, G.	EPA-670/2-74-009
Bhutani, J.	EPA-600/2-75-007
Bhutani, J.	EPA-600/2-75-011
Bickelhaupt, E. E.	EPA-600/5-73-012d
Bickelhaupt, R. E.	EPA-600/2-75-017
Bienstock, D.	EPA-650/2-74-038
Bildstein, K.	EPA-600/5-73-012e
Billedeau, S. M.	EPA-650/2-74-068
Bingham, T. H.	EPA-600/5-74-009
Bird Jr., A. V.	EPA-650/2-73-035
Birkeland, C.	EPA-600/3-76-028
Birks, L. S.	EPA-600/4-75-002
Birks, L. S.	EPA-650/2-73-006
Bishop, A. B.	EPA-600/5-74-021
Bishop, A. B.	EPA-600/5-74-010
Bishop, D. F.	EPA-670/2-73-040
Bishop, D. F.	EPA-670/2-73-037
Bishop, D. F.	EPA-670/2-73-033
Bishop, D. F.	EPA-670/2-73-075
Bishop, D. F.	EPA-670/2-73-070
Bishop, D. F.	EPA-670/2-73-073
Bishop, D. F.	EPA-670/2-75-008
Bishop, D. F.	EPA-670/2-75-052
Bishop, D. F.	EPA-670/2-75-051
Black, A. P.	EPA-660/2-74-055
Black, A. P.	EPA-660/2-75-006
Black, S. C.	EPA-680/1-75-001
Blakeslee, C. E.	EPA-650/2-73-005
Blecher, W. A.	EPA-600/2-75-078
Bledsoe, B. E.	EPA-660/2-75-022
Blount, M. C.	EPA-600/9-75-006
Blum, U.	EPA-600/3-76-031
Bock, D. H.	EPA-600/2-76-027
Bock, D. H.	EPA-670/2-75-042
Bode, J. D.	EPA-650/2-73-010
Boehme, W.	EPA-600/2-76-009
Boen, D. F.	EPA-670/2-74-077
Boen, D. F.	EPA-670/2-75-027
Boericke, R. B.	EPA-600/2-75-062
Boettner, E. A.	EPA-670/2-73-049
Boland, D. H. P.	EPA-600/3-76-037
Boldt, K. R.	EPA-600/2-76-047
Bolton, R. E.	EPA-670/2-74-068
Bolton, R. E.	EPA-670/2-74-038
Bombaugh, K. J.	EPA-600/2-76-012b
Bombaugh, K. J.	EPA-600/2-76-012a
Bond, H.	EPA-660/3-75-036
Bond, R. G.	EPA-670/2-73-048
Bond, R. G.	EPA-670/5-73-020
Bonz, P. E.	EPA-670/2-73-069
Bookhout, C. G.	EPA-600/3-76-007
Boone, J. E.	EPA-650/2-73-012
Booth, R. L.	EPA-670/4-74-002
Borgos, J. A.	EPA-650/2-73-022
Bories, D. B.	EPA-660/2-73-026
Bornstein, L. J.	EPA-600/2-76-024
Bornstein, M.	EPA-600/4-76-013
Borror, A. C.	EPA-660/3-74-031
Boston, P.	EPA-600/1-75-004
Bott, T.	EPA-660/2-75-008
Bourquin, A. W.	EPA-660/3-75-001
Bourquin, A. W.	EPA-660/3-75-035
Bowman, M. M.	EPA-660/3-75-004
Boyd, W. W.	EPA-670/2-74-084
Boyle, W. C.	EPA-660/3-75-022
Bradford, R. R.	EPA-660/2-74-033
Bradshaw, J. S.	EPA-660/2-75-007
Bradway, R.	EPA-600/2-75-013a
Bradway, R.	EPA-650/2-74-036
Bradway, R. M.	EPA-600/2-76-077a
Bragg, G. M.	EPA-660/2-74-083
Brand, B. G.	EPA-670/2-74-014
Brandon, C. A.	EPA-600/2-76-060
Brandt, H. T.	EPA-600/2-76-022
Brashear, D. A.	EPA-600/1-75-003
Brater, E. F.	EPA-670/2-75-046
Braughan, D. A.	EPA-670/2-74-084
Braughan, D. A.	EPA-670/2-74-083
Brauhn, J. L.	EPA-660/3-75-011
Bretthauer, E. W.	EPA-680/1-75-001
Brezonik, P. L.	EPA-660/3-73-002
Bricewell, L.	EPA-660/3-74-016
Brier, G. W.	EPA-650/4-75-010
Britt, L. O.	EPA-600/2-75-038
Broadfoot, W. J.	EPA-600/2-75-006
Brommenschenkel Jr., F.	EPA-660/2-74-034
Brooks, A. S.	EPA-600/3-76-036
Brooks, E.	EPA-600/2-75-012
Brooks, N. G.	EPA-660/3-73-010
Brown, C. T.	EPA-660/2-75-017
Brown, J. C.	EPA-670/2-73-047a
Brown, J. W.	EPA-650/2-73-029
Brown, K. W.	EPA-600/3-76-005
Brown, K. W.	EPA-600/3-76-019
Brown, L. R.	EPA-660/3-75-024
Brown, R. A.	EPA-600/2-76-037
Brownstein, A. B.	EPA-600/5-75-007
Brows, D.	EPA-670/2-74-095b
Bruckner, B. H.	EPA-680/4-73-002
Brusewitz, G. H.	EPA-660/2-75-009
Bryan, C. E.	EPA-660/2-75-014
Buchanan, J.	EPA-600/2-76-083
Buchanan, J.	EPA-600/2-76-080
Buchanan, J.	EPA-600/2-76-081
Budde, W. L.	EPA-600/4-75-007
Budee, P. A.	EPA-600/2-75-009
Bujak, P.	EPA-600/5-73-012e
Bull, R. J.	EPA-600/1-76-013
Burch, D. E.	EPA-600/2-75-024
Burch, D. E.	EPA-650/2-73-030
Burch, J. E.	EPA-600/2-76-056
Burchfiled, H. P.	EPA-650/2-74-068

PERSONAL AUTHOR INDEX

Burchinal, J. C. EPA-670/2-73-083
Burge, W. D. EPA-600/2-75-034
Burklin, C. E. EPA-650/2-75-038
Burnklin, C. E. EPA-600/2-75-042
Burns, J. A. EPA-600/2-75-057
Burns, R. EPA-670/2-74-003
Burnsztynsky, T. A. EPA-600/2-75-049
Burrell, D. C. EPA-660/3-75-026
Bursztynsky, T. EPA-600/2-75-033
Burton, J. EPA-660/2-74-007
Buzzard, M. EPA-660/3-75-021
Byerley, J. J. EPA-670/2-74-059
Byram, K. V. EPA-600/3-75-015
Byrd, E. A. EPA-600/2-76-068b
Byrd, E. A. EPA-600/2-76-068a
Cabasso, I. EPA-670/1-75-001
Caceres, S. EPA-650/2-74-098a
Cagle, J. W. EPA-600/2-75-039
Cahill, T. A. EPA-600/2-75-074
Caldwell, E. EPA-650/1-74-004
Caldwell, M. C. EPA-600/2-76-094
Callaway, R. J. EPA-660/3-73-014
Callihan, C. D. EPA-670/2-73-095
Calvert S. EPA-600/2-75-021a
Calvert, S. EPA-600/2-75-018
Calvert, S. EPA-600/2-75-074
Calvert, S. EPA-650/2-73-036
Calvert, S. EPA-650/2-74-119b
Calvin, E. L. EPA-600/2-76-010
Camann, D. E. EPA-600/1-76-019
Campbell, K. S. EPA-600/2-75-074
Campbell, T. L. EPA-670/2-73-103
Cannon, R. C. EPA-600/2-76-045
Canter, L. EPA-660/2-74-037
Capper, J. EPA-670/2-74-044
Capron, J. W. EPA-600/2-76-011
Carawan, R. E. EPA-660/2-74-031
Cardin, F. A. EPA-670/5-74-004
Cardwell, R. D. EPA-600/3-76-008
Carlson, D. A. EPA-670/2-74-061
Carlson, O. N. EPA-670/2-73-091
Carpenter, B. H. EPA-650/2-74-097
Carroll, J. EPA-600/5-74-032
Carroll, T. E. EPA-670/2-75-047
Carter, M. H. EPA-600/4-76-004
Carter, S. EPA-600/5-73-016
Case, O. P. EPA-670/2-74-008
Case, P. O. EPA-670/2-75-029
Cass R. EPA-600/2-75-013a
Cass, R. EPA-650/2-74-036
Cass, R. W. EPA-600/2-76-077a
Cassel, A. H. EPA-670/2-73-040
Castaline, A. H. EPA-600/2-76-069
Caster, R. EPA-660/3-74-016
Cato, G. A. EPA-600/2-76-086a
Cavallaro, J. A. EPA-600/2-76-091
Cavanaugh, E. C. EPA-600/2-76-064
Cavanaugh, E. C. EPA-600/2-75-042
Cavanaugh, E. C. EPA-600/2-76-012a
Cavanaugh, E. C. EPA-600/2-76-012b
Cavanaugh, E. C. EPA-600/2-75-068
Cavanaugh, G. EPA-650/2-75-038
Cawlfield, D. E. EPA-600/3-75-015
Cerrillo, L. A. EPA-660/3-75-018
Chagy, Y. C. EPA-660/2-73-029
Chamberlain, S. G. EPA-600/5-74-004
Chambers, M. D. EPA-600/5-74-021
Chan, F. K. EPA-650/2-74-072
Chaney, R. L. EPA-600/2-75-034
Chang, J. EPA-660/3-75-026
Chang, N. L. EPA-660/2-73-030
Chansky, S. EPA-600/5-74-032
Chappelow, C. C. EPA-600/9-75-005
Charlie, W. A. EPA-670/2-74-076b
Chase, G. EPA-670/2-74-044
Chasse, J. EPA-660/2-73-001
Chatterjee, S. EPA-600/5-74-016
Chaung, S. C. EF 660/3-74-004b
Chehaske, J. T. EPA-600/2-76-048b
Chehaske, J. T. EPA-600/2-76-048a
Chen, C. L. EPA-600/2-75-047
Cheng, M. S. EPA-600/2-76-050
Chernoff, N. EPA-650/1-73-001
Cherry Jr., R. H. EPA-670/2-75-018
Chesness, J. L. EPA-660/2-74-064
Chester, W. S. EPA-600/3-76-018
Chi, C. T. EPA-600/2-75-045
Chian, E. S. K. EPA-600/3-75-011
Chin, F. Y. EPA-600/5-75-004
Choi, P. EPA-600/2-74-001
Choi, P. S. K. EPA-600/2-75-073
Christianson, A. G. EPA-660/2-73-016
Christianson, C. B. EPA-660/2-74-070
Chung, J. EPA-650/2-73-027
Cirello, J. EPA-600/9-76-004
Citron, R. EPA-600/4-75-001
Clancy, G. M. EPA-600/2-76-064
Clar, M. L. EPA-660/2-74-071
Clark, D. A. EPA-660/2-74-038
Clark, D. A. EPA-660/2-74-065
Clark, M. J. EPA-670/2-75-019
Clark, P. A. EPA-600/2-76-072
Clark, R. M. EPA-670/1-74-001
Clark, R. M. EPA-670/2-74-067
Clark, R. M. EPA-670/5-73-012
Clarke, N. A. EPA-600/1-75-003
Clements III, E. V. EPA-670/2-75-038
Clements, E. V. EPA-660/2-74-075
Clesceri, N. L. EPA-660/3-73-003
Clesceri, N. L. EPA-670/2-74-063
Cliese, J. D. EPA-660/2-74-060
Cobian, K. E. EPA-660/2-73-033
Cocchetto, J. F. EPA-600/2-75-063
Cochran, R. A. EPA-670/2-73-084
Cohen, A. I. EPA-600/5-75-015
Cohen, D. B. EPA-600/2-75-035
Cohen, I. M. EPA-660/2-74-053
Cohen, M. EPA-600/2-76-007
Cohen, S. EPA-670/2-74-071
Cohn, M. M. EPA-600/2-75-062
Cohn, M. M. EPA-670/2-74-026
Cohn, M. M. EPA-670/2-74-039
Cohn, S. EPA-600/5-73-015
Colcord, A. R. EPA-600/2-76-090
Cole, C. A. EPA-670/2-73-033
Cole, D. E. EPA-670/2-75-061
Colley, J. D. EPA-600/2-75-068
Colley, J. D. EPA-600/2-76-064
Collins, A. G. EPA-660/2-74-010
Collins, D. C. EPA-650/4-74-001
Collins, J. EPA-660/2-74-069
Colston, N. V. EPA-670/2-74-096
Colwell, R. R. EPA-600/3-75-007
Combs, L. P. EPA-600/2-76-038
Conden Jr., R. L. EPA-670/2-73-024
Conkle, H. N. EPA-600/2-76-056

PERSONAL AUTHOR INDEX

Conn, W. D.	EPA-600/5-75-018
Conner, W.	EPA-650/2-74-013
Converse, A. O.	EPA-670/2-73-011
Cook, D. W.	EPA-660/3-75-024
Cooley, A. M.	EPA-660/2-74-093
Cooley, P. C.	EPA-600/5-74-009
Cooney, R. T.	EPA-660/3-75-026
Cooper, D.	EPA-600/5-74-016
Cooper, D. W.	EPA-600/2-75-054
Cooper, D. W.	EPA-600/2-76-055
Cooper, D. W.	EPA-600/2-76-035
Cooper, G. R.	EPA-600/2-75-041
Cooper, K. G.	EPA-600/5-75-013
Cooper, K. G.	EPA-600/5-75-002
Cooper, P. C.	EPA-600/5-73-012c
Corbett, W. E.	EPA-600/2-76-049a
Corbett, W. E.	EPA-600/2-76-049b
Cordle, S. R.	EPA-600/2-75-010
Costlow Jr., J. D.	EPA-600/3-76-007
Coulon, C.	EPA-660/3-75-026
Counts, C. A.	EPA-670/2-75-012
Coursey, J. F.	EPA-650/2-74-004
Courtney, K. D.	EPA-650/1-73-001
Coutts, H. J.	EPA-660/2-74-070
Cox, F.	EPA-600/2-76-026
Cox, M. F.	EPA-660/3-74-021
Craft, T. F.	EPA-660/2-75-017
Craig, S. E.	EPA-650/2-74-046a
Crane, J. D.	EPA-600/2-75-049
Crane, J. D.	EPA-600/3-76-003
Crane, J. J.	EPA-660/3-75-026
Crawford, A. R.	EPA-600/2-75-053
Crawford, N. H.	EPA-600/2-76-043
Crawford, N. H.	EPA-660/2-74-013
Crites, R. W.	EPA-660/2-73-006a
Crites, R. W.	EPA-660/2-73-006b
Croley II, T. E.	EPA-600/2-76-050
Crosswhite, W. M.	EPA-660/2-74-031
Crowder, D. G.	EPA-670/2-73-067
Crowder, L. A.	EPA-600/1-76-008
Cruver, J. E.	EPA-670/2-75-009
Csanady, G. T.	EPA-660/2-74-083
Csanady, G. T.	EPA-660/2-74-082
Csanady, G. T.	EPA-660/3-73-011
Culp, J. H.	EPA-660/2-75-021
Cummings, F. H.	EPA-600/5-74-018
Currier, R. A.	EPA-670/2-73-005
Curtin, C.	EPA-650/2-73-050
Curtis, V.	EPA-600/5-75-009
Cushing, K. M.	EPA-650/2-73-035
Cushing, K. M.	EPA-650/2-74-102a
Cutkomp, L. K.	EPA-660/2-73-027
Cyr, J. W.	EPA-660/2-74-088
Dalrymple, R. J.	EPA-670/2-75-011
Daly, W. H.	EPA-670/2-75-032
Damron, B. L.	EPA-660/2-75-001
Dangel, R. A.	EPA-670/2-75-036
Daniels, S. L.	EPA-670/2-73-103
Darling, J. E.	EPA-670/2-75-022
Daul, F. R.	EPA-660/2-74-012
Davanzo, A. C.	EPA-670/2-75-020
Davenport, C. V.	EPA-660/2-73-005
Davidson, J. M.	EPA-660/2-75-009
Davis, A. E.	EPA-600/2-74-003
Davis, H. L.	EPA-670/2-75-063
Davis, H. R.	EPA-660/2-75-019
Davis, L. R.	EPA-660/3-75-039
Davis, T. A.	EPA-670/2-75-043
Dawson, G. W.	EPA-670/2-73-078
Day, D. E.	EPA-670/2-73-038
Day, D. E.	EPA-670/2-75-053
Dayan, V. H.	EPA-600/2-76-039
De La Fuente, E.	EPA-600/2-75-038
De Primo, M. J.	EPA-670/2-73-098
Dearby, R. L.	EPA-670/4-74-003a
Deason, T. R.	EPA-600/3-76-022
Decker, C. E.	EPA-650/2-74-019
Demerjian, K. L.	EPA-650/3-73-002
Demeter, J.	EPA-650/2-74-038
Dennis, R.	EPA-650/2-74-036
Derrington, R. E.	EPA-670/2-73-060
Detrick, R.	EPA-600/2-76-072
Deurbrouck, A. W.	EPA-600/2-76-091
DeBose, A. T.	EPA-660/2-74-055
DeDecker, F. J.	EPA-670/2-75-010
DeLuca, F. A.	EPA-660/2-74-056
DeLucia, R. J.	EPA-600/5-74-030
DeLucia, R. J.	EPA-600/5-75-001
DeWalle, F. B.	EPA-600/3-75-011
DeWitt Jr., F. A.	EPA-670/2-75-044
DeWitt Jr., F. A.	EPA-670/2-75-059
DeWitt, Jr., F. A.	EPA-670/2-75-003
Dickerman, J. C.	EPA-600/2-76-012a
Dickerman, J. C.	EPA-600/2-76-012b
Dickerman, J. C.	EPA-600/2-75-042
Dickerson, J. C.	EPA-650/2-75-038
Dickson, E. M.	EPA-600/2-74-002
Diesch, S. L.	EPA-660/2-75-012
Diesch, S. L.	EPA-670/2-73-051
Dietzmann, H. M.	EPA-600/2-75-048
Dimitriades, B.	EPA-600/3-76-029
Dimitriades, B.	EPA-600/3-76-017
Dimouro, P.	EPA-650/2-73-009
Dismukes, E. B.	EPA-600/2-75-015
Ditoro, D. M.	EPA-660/3-73-009
Ditsworth, G. R.	EPA-660/3-73-014
Dixon, P. S.	EPA-660/3-73-015
DiGasbarro, P.	EPA-600/4-76-013
DiGiano, F. A.	EPA-670/2-75-065
DiToro, D. M.	EPA-660/3-75-005
Do, L.	EPA-650/2-74-098a
Dodds, H.	EPA-650/2-73-009
Donigian Jr., A. S.	EPA-600/2-76-043
Donigian, A. S.	EPA-660/2-74-013
Donovan, R. P.	EPA-600/2-76-087
Dorion, G.	EPA-660/2-74-074
Dornbusch, D. M.	EPA-600/5-73-005
Dornbush, J. N.	EPA-660/2-74-005
Dorough, U. W.	EPA-650/1-74-002
Doskey, P. V.	EPA-600/3-75-005
Dostal, K. A.	EPA-660/2-74-058
Douglas, G.	EPA-660/2-73-037
Downing, P. B.	EPA-600/5-73-014
Doyle, A.	EPA-650/2-73-023
Doyle, F. J.	EPA-670/2-74-009
Doyle, J. R.	EPA-670/2-75-022
Drake, J. A.	EPA-650/2-73-014
Dressler, F. R.	EPA-670/2-75-041
Driscoll, J.	EPA-650/2-73-050
Drost-Hansen, W.	EPA-660/3-74-003
Duchene, A. G.	EPA-670/5-74-001
Duffee, R. A.	EPA-650/2-74-008a
Dugal, H. S.	EPA-660/2-74-029
Dugan, P. R.	EPA-600/2-75-032
Duhart, B. T.	EPA-600/4-76-005
Duke, H. R.	EPA-660/2-75-015

PERSONAL AUTHOR INDEX

Duncan, L. J.	EPA-600/2-74-004
Dunlap, C. E.	EPA-670/2-73-095
Dunlap, W. J.	EPA-660/2-73-014
Dunning, J. A.	EPA-600/3-76-032
Durfre, R. L.	EPA-650/4-73-003
Durham, J. L.	EPA-600/3-76-035
Durocher, D. F.	EPA-600/2-76-069
Duvall, D. S.	EPA-670/2-75-033d
Duvall, D. S.	EPA-670/2-75-033b
Duvall, D. S.	EPA-670/2-75-033a
Duvall, D. S.	EPA-670/2-75-033c
Dwyer, W. P.	EPA-600/3-75-013
Dygas, J. A.	EPA-660/3-75-026
Dzierlenga, P. S.	EPA-600/2-75-068
Dzierlenga, P. S.	EPA-600/2-76-064
Easterly, D. G.	EPA-680/4-75-007
Eckert, E. H.	EPA-600/2-76-027
Edinger, J.	EPA-660/2-74-053
Egan, B.	EPA-600/3-75-003a
Egan, B.	EPA-600/3-75-003b
Ehreth, D. J.	EPA-670/9-75-004
Eichelberger, J. W.	EPA-600/4-75-007
Eilers, R. G.	EPA-670/2-73-045
Eilers, R. G.	EPA-670/2-73-046
Eilers, R. G.	EPA-670/2-73-044
Eilers, R. G.	EPA-670/2-74-069
Eimutis, E. C.	EPA-600/2-75-045
Eimutis, E. C.	EPA-600/2-76-032a
Eisenmann, J. L.	EPA-670/2-73-076
Eisler, R.	EPA-600/3-75-008
Ekmann, J. M.	EPA-600/2-75-075
Eldridge, J. E.	EPA-670/4-75-006
Elfers, K.	EPA-600/5-73-015
Eliassen, R.	EPA-670/2-73-010
Elliott, L. F.	EPA-660/2-75-015
Ellis, E. C.	EPA-600/4-75-003
Ellis, W. J.	EPA-660/2-74-057
Elston, L. W.	EPA-600/2-76-090
Emerson, D. B.	EPA-660/2-73-035
Emerson, M. J.	EPA-600/5-73-008a
Enfield, C. G.	EPA-660/2-75-022
Engelkemeier, A.	EPA-600/3-76-010
Englebrecht, R. S.	EPA-670/2-73-082
Engleman, V. S.	EPA-600/2-76-003
Engler, M. R.	EPA-600/2-75-040
English, J. N.	EPA-600/9-75-007
Enns, K.	EPA-670/2-74-059
Ensor, D. S.	EPA-600/2-75-074
Ensor, D. S.	EPA-600/2-76-062
Epstein, E.	EPA-600/2-75-034
Epstein, M.	EPA-600/2-75-050
Epstein, M.	EPA-650/2-73-013
Epstein, M.	EPA-650/2-74-010
Epstein, M. J.	EPA-600/5-75-017
Erickson, A. E.	EPA-660/2-74-057
Erley, D.	EPA-600/5-75-005
Ernst, E.	EPA-670/5-75-001
Ernst, U. F.	EPA-600/5-74-018
Evans III, F. L.	EPA-600/2-76-082
Evans, W. E.	EPA-650/4-73-002
Everson, T. C.	EPA-660/2-74-025
Eyer, C. S.	EPA-670/1-75-001
Fair, D. H.	EPA-600/4-76-006
Falkenborg, D. H.	EPA-670/9-75-004
Falter, C. M.	EPA-660/3-73-017
Fan, L. S.	EPA-600/2-75-023
Farley, S.	EPA-600/3-76-033
Farmer, W. J.	EPA-660/2-74-054
Farnham, W. B.	EPA-660/2-74-040
Farquhar, J.	EPA-660/2-74-075
Farrah, S. R.	EPA-670/2-74-018
Farrell, J. B.	EPA-670/2-75-013
Farrell, P. J.	EPA-660/2-73-010
Feige, W. A.	EPA-600/2-75-036
Felder, M.	EPA-600/5-73-012a
Felder, R. M.	EPA-600/2-76-087
Feldman, M. H.	EPA-600/3-75-015
Feldman, M. H.	EPA-660/3-73-013
Felix, V. M.	EPA-600/2-75-068
Felix, V. M.	EPA-600/2-76-064
Fennelly, P. F.	EPA-600/2-76-069
Fensterstock, J. C.	EPA-600/5-74-015
Fenters, J. D.	EPA-650/1-73-002
Ferens, M. C.	EPA-660/3-73-022
Ferguson, R. A.	EPA-650/2-73-037
Ferguson, T. L.	EPA-600/2-75-041
Ferguson, T. L.	EPA-660/2-74-094
Ferguson, T. L.	EPA-670/2-75-057
Fernandes, S. R.	EPA-600/2-75-042
Ferrar, T. A.	EPA-600/5-75-007
Feuerstein, D.	EPA-600/2-75-033
Feuerstein, D. L.	EPA-670/2-75-037
Fhir, C. C.	EPA-600/4-75-005a
Field, R.	EPA-600/2-76-095
Field, R.	EPA-670/2-73-059
Field, R.	EPA-670/2-74-090
Fieldhouse, I. B.	EPA-600/2-76-016a
Fieldhouse, I. B.	EPA-600/2-76-016b
Finger, R. E.	EPA-670/2-74-061
First, M. W.	EPA-600/2-76-020
First, M. W.	EPA-670/2-73-017
Fischer, J. R.	EPA-660/2-74-036
Fisette, G. R.	EPA-670/2-74-066
Fisher, J. H.	EPA-660/2-74-028
Fisk, A. T.	EPA-670/2-74-020
Fitch, R. H.	EPA-600/2-76-053
Fitzgerald, G. P.	EPA-660/3-73-023
Flegal, C.	EPA-600/2-75-012
Flegal, C. A.	EPA-650/2-74-025
Fleischer, L. R.	EPA-670/2-73-006
Fling, R. B.	EPA-600/2-76-024
Fling, R. B.	EPA-600/2-76-070
Flinn, J. E.	EPA-600/5-74-005
Flocchini, R. G.	EPA-600/2-75-074
Fober, H. A.	EPA-660/2-73-020
Fogel, M. E.	EPA-600/5-74-009
Fojo, C. V.	EPA-600/2-75-009
Foley, G.	EPA-600/2-75-070
Folinsbee, L. J.	EPA-600/1-76-001
Fookson, A.	EPA-670/2-73-052
Foran, J. F.	EPA-670/2-74-024B
Foran, J. F.	EPA-670/2-74-024A
Fordyce, I. V.	EPA-660/2-74-093
Foreman, D. G.	EPA-600/3-76-008
Forso, K.	EPA-660/2-74-069
Foster, C. B.	EPA-600/2-75-011
Foster, D. H.	EPA-670/2-73-082
Francey, G. J.	EPA-670/2-75-002
Franco, N. B.	EPA-670/2-74-023
Frank, C.	EPA-660/9-74-002
Fraser, J. P.	EPA-670/2-73-084
Frost, M.	EPA-600/5-73-016
Freed, V. H.	EPA-670/2-74-027
Freeman III, A. M.	EPA-600/5-74-029
Freeman, G.	EPA-600/1-76-009
Freeman, G.	EPA-600/1-76-021

PERSONAL AUTHOR INDEX

Fremount, H. A.	EPA-660/2–73–019
Frey, P. J.	EPA-660/3–75–019
Frey, P. J.	EPA-660/3–75–020
Friberg, L.	EPA-600/1–75–004
Friberg, L.	EPA-600/1–76–018
Friberg, T. S.	EPA-660/2–75–028
Frohnsdorff, G.	EPA-670/2–73–052
Frost, R. R.	EPA-650/2–73–044
Fryer, J. L.	EPA-600/3–76–021
Fryer, J. L.	EPA-660/3–73–020
Frykberg, W. R.	EPA-600/3–75–009
Fuhriman, D. K.	EPA-660/2–75–007
Fukuto, T. R.	EPA-600/1–76–004
Fullerton, D. G.	EPA-600/2–75–035
Fullerton, H. H.	EPA-600/5–74–021
Funkhouser, J. T.	EPA-650/2–73–023
Gaby, W. L.	EPA-670/2–75–023
Gagliano, S. M.	EPA-600/5–75–006
Gahler, A. R.	EPA-660/3–74–015
Gaines, F. R.	EPA-600/2–75–030
Gales, M. E.	EPA-670/4–74–002
Galeski, J. B.	EPA-600/2–76–079
Galina, G.	EPA-600/2–75–062
Garner, W.	EPA-670/2–74–048
Gasiecki, E. A.	EPA-600/2–76–031
Gass, P. J.	EPA-600/5–74–008
Gaufin, A. R.	EPA-660/3–73–004
Gaufin, A. R.	EPA-660/3–74–023
Gee, S.	EPA-600/2–76–068a
Gee, S.	EPA-600/2–76–068b
Gehrs, C. W.	EPA-660/3–74–006
Geinapolos, A.	EPA-670/2–74–025
Geldreich, E. E.	EPA-670/9–75–006
Gemma, J. L.	EPA-600/3–76–018
Genco, J. M.	EPA-670/2–75–049
Genetelli, E. J.	EPA-600/9–76–004
Gerba, J.	EPA-600/5–75–011
Gerber, N. N.	EPA-670/2–74–094
Gerhard, J.	EPA-650/3–74–009
Gerloff, G. C.	EPA-660/3–75–027
Gerstle, R. W.	EPA-650/2–75–057j
Gessford, J. E.	EPA-600/5–75–017
Giaquinta, A. R.	EPA-600/2–76–050
Giever, P.	EPA-650/2–73–023
Gilbert, D. E.	EPA-600/2–76–034
Gilfrich, J. V.	EPA-600/4–75–002
Gilfrich, J. V.	EPA-650/2–73–006
Gillean, J. I.	EPA-670/5–73–012
Gillett, J. W.	EPA-660/3–74–024
Gillmeister, R. J.	EPA-650/2–74–046b
Giramonti, A. J.	EPA-600/2–75–078
Glass, G. E.	EPA-600/3–75–012
Glass, N. R.	EPA-600/3–76–013
Glasser, W. G.	EPA-660/2–74–069
Glueckert, A. J.	EPA-670/2–75–007
Goddard, H. C.	EPA-600/5–75–019
Goddard, H. C.	EPA-670/1–74–001
Gold, S.	EPA-600/4–75–011
Goldman, C. R.	EPA-660/3–74–034
Goldschmidt, V. W.	EPA-660/3–74–004b
Goldschmidt, V. W.	EPA-660/3–74–004a
Goldshmid, J.	EPA-650/2–73–036
Goldsmith, R. L.	EPA-660/2–73–019
Gonzalez, N.	EPA-650/2–74–098a
Gooding, C. H.	EPA-600/2–76–073
Gooding, C. H.	EPA-600/2–76–008
Goodnight, G. J.	EPA-600/3–75–009
Goodrich, P. R.	EPA-660/2–75–012
Gordon, R. C.	EPA-660/2–73–005
Gorman, P. G.	EPA-600/5–74–007
Gove, C. S.	EPA-670/2–73–065
Grace, J. M.	EPA-600/2–76–030
Graffeo, A. P.	EPA-600/2–76–072
Gram, A. L.	EPA-660/2–73–022
Grant, F.	EPA-660/2–74–034
Gratzl, J. S.	EPA-650/2–74–005
Gratzl, J. S.	EPA-660/2–74–069
Graven, W. M.	EPA-600/2–76–070
Gray, A. F.	EPA-660/2–74–036
Gray, R. A.	EPA-650/2–74–046b
Green, A. C.	EPA-670/2–74–056
Green, E. E.	EPA-650/2–74–068
Green, O.	EPA-670/2–73–103
Greenburg, J. S.	EPA-600/2–76–048a
Greenburg, J. S.	EPA-600/2–76–048b
Greening, E. D.	EPA-670/2–73–082
Greenlund, T. W.	EPA-600/2–75–030
Gregord, M. W.	EPA-600/2–75–053
Gresswell, R. E.	EPA-660/3–73–019
Grethlein, H. E.	EPA-670/2–73–011
Griffin, L. I.	EPA-650/2–74–035
Grim, E. C.	EPA-670/2–74–093
Grimsley, D. H.	EPA-600/5–73–012d
Grimsrud, G. P.	EPA-600/5–75–015
Groberg, W. J.	EPA-600/3–76–021
Groner, R. R.	EPA-670/2–74–027
Groseclose, J. L.	EPA-670/2–73–098
Grossman, D. S.	EPA-670/2–75–026a
Grossman, D. S.	EPA-670/2–75–026b
Grube Jr, W. E.	EPA-670/2–74–070
Grupenhoff, B. L.	EPA-670/2–74–067
Grutsch, J. F.	EPA-660/2–75–025
Gryvnak, D. A.	EPA-600/2–75–024
Gumtz, G. D.	EPA-670/2–73–068
Gumtz, G. D.	EPA-670/2–74–013
Gumtz, G. D.	EPA-670/2–74–097
Gumtz, G. D.	EPA-670/2–75–056
Guttman, J.	EPA-600/5–73–012b
Guzdar, A. R.	EPA-670/2–74–019
Guzdar, A. R.	EPA-670/2–74–020
Guzdar, A. R.	EPA-670/2–74–021
Haderlie, E. E.	EPA-660/3–75–013
Hagarman, J. A.	EPA-670/2–75–041
Haile, C. L.	EPA-660/3–75–022
Hais, A. B.	EPA-670/2–73–073
Hais, A. B.	EPA-670/2–75–008
Hale, A. M.	EPA-660/2–74–083
Hall, C. F.	EPA-670/2–73–041
Hall, E.	EPA-600/2–74–001
Hall, E. D.	EPA-670/2–73–044
Hall, E. D.	EPA-670/2–73–045
Hall, E. D.	EPA-670/2–73–046
Hall, E. H.	EPA-600/2–76–056
Hall, E. H.	EPA-600/2–76–076
Hall, G. E.	EPA-660/3–75–026
Hall, R.	EPA-600/2–76–046a
Hall, R.	EPA-600/2–76–046b
Hall, R. C.	EPA-600/1–76–012
Hall, R. E.	EPA-650/2–73–031
Hall, R. E.	EPA-650/2–74–003
Halligan, B. J.	EPA-600/3–75–012
Halligan, J. E.	EPA-660/2–74–090
Hallowell, J. B.	EPA-670/2–75–055
Hamersma, J. W.	EPA-600/2–76–093b
Hamersma, J. W.	EPA-650/2–74–025a
Hamersma, J. W.	EPA-650/2–74–025

PERSONAL AUTHOR INDEX

Hamil, H. F. EPA-600/4-76-014
Hamil, H. F. EPA-650/4-74-022
Hamil, H. F. EPA-650/4-74-021
Hammer Jr., P. G. EPA-600/5-73-007
Hammond, V. L. EPA-670/2-75-014
Hanks, R. J. EPA-660/2-75-005
Hansen, C. A. EPA-670/2-75-019
Hansen, C. M. EPA-660/2-74-057
Hansen, R. P. EPA-600/5-75-008
Hanson, P. EPA-600/5-75-017
Happel, J. EPA-650/2-73-020
Hardin, B. D. EPA-660/3-74-006
Hare, C. P. EPA-670/2-74-092
Harmon, D. J. EPA-670/9-73-056
Harms, L. L. EPA-660/2-74-005
Harnett, L. EPA-600/2-75-012
Harrington, J. EPA-600/5-74-020
Harris, D. B. EPA-600/2-76-023
Harris, R. F. EPA-660/3-75-006
Harrison, J. W. EPA-600/2-76-034
Harstkatte Jr., G. A. EPA-670/2-73-064
Hart, F. D. EPA-600/2-75-010
Harvey, R. D. EPA-650/2-73-044
Harwood, C. F. EPA-600/2-76-065
Hatch, L. T. EPA-660/2-73-036
Hawkins, B. K. EPA-660/2-74-031
Hayden, J. W. EPA-600/2-76-078
Haynie, F. H. EPA-600/3-76-015
Haynie, F. H. EPA-650/3-74-009
Hazen, T. E. EPA-660/2-74-009
Heaney, J. P. EPA-600/5-74-013
Heaney, J. P. EPA-670/2-75-022
Heaney, J. P. EPA-670/2-75-017
Heap, M. P. EPA-600/2-76-061a
Hebert, R. EPA-650/2-73-050
Heble, L. R. EPA-660/2-73-010
Hecht, N. L. EPA-670/2-75-033b
Hecht, N. L. EPA-670/2-75-033c
Hecht, N. L. EPA-670/2-75-033a
Hecht, N. L. EPA-670/2-75-033d
Heck, W. W. EPA-600/3-76-032
Hedley, W. H. EPA-600/2-75-045
Heenan, A. T. EPA-670/2-74-024B
Heenan, A. T. EPA-670/2-74-024A
Heeney, J. M. EPA-670/2-74-043
Hegarty, R. EPA-600/2-76-001
Heidman, J. A. EPA-670/2-75-051
Heidman, J. A. EPA-670/2-75-052
Heimburg, R. W. EPA-670/2-73-087
Hein, C. J. EPA-600/5-74-024
Heininger, R. C. EPA-600/2-76-011
Helmers, A. E. EPA-660/3-74-009
Hemphill, D. P. EPA-670/2-73-084
Hemphill, J. M. EPA-600/5-75-017
Hendricks, G. F. EPA-600/2-75-072
Henry, W. M. EPA-600/4-75-009
Hensley, E. F. EPA-600/2-75-051
Henson, L. J. EPA-600/2-75-006
Herkert, E. C. EPA-670/2-73-071
Herzog, K. L. EPA-660/2-74-090
Hess, F. D. EPA-600/2-76-024
Hess, F. D. EPA-600/2-76-070
Heukelekian, H. EPA-670/2-73-027
Hicks, H. C. EPA-660/2-73-023
Hill IV, J. EPA-600/3-76-001
Hill IV, J. EPA-660/3-74-024
Hill, R. D. EPA-670/2-74-093
Himmelstein, H. L. EPA-600/5-73-012b
Hissong, D. W. EPA-600/2-75-073
Hissong, D. W. EPA-600/2-75-066
Hnatow, M. EPA-650/2-73-020
Hodd, S. L. EPA-670/2-75-011
Hoffer, E. M. EPA-600/2-76-059
Hoffman, D. A. EPA-670/2-73-039
Hoffman, L. EPA-650/2-74-030
Hogan, C. M. EPA-660/2-73-003
Hoke, R. C. EPA-650/2-74-001
Holberger, R. EPA-600/2-75-007
Holbrook Jr., D. J. EPA-600/1-76-010b
Holbrook Jr., D. J. EPA-600/1-76-010a
Holdren, G. C. EPA-660/3-75-006
Holland, J. EPA-600/5-75-014
Holm, H. W. EPA-660/3-73-007
Holm, H. W. EPA-660/3-74-021
Holm, R. A. EPA-660/2-73-030
Holmes, T. EPA-600/5-76-002
Holuec, I. EPA-670/2-73-081
Honack, P. EPA-670/2-73-071
Honea, F. L. EPA-600/2-75-041
Hong, S. EPA-670/2-74-035b
Hooks, D. B. EPA-670/2-75-043
Hoot, F. M. EPA-600/2-75-060
Hoover, A. W. EPA-650/1-74-001
Hoover, T. B. EPA-660/4-75-001
Hopkins, H. T. EPA-660/2-74-071
Horne, R. EPA-670/2-75-024
Hornsback, K. E. EPA-600/5-74-011
Horowitz, A. EPA-650/4-74-001
Horsnback, K. E. EPA-600/5-73-012b
Hortenstine, C. C. EPA-670/2-73-063
Horton, W. EPA-600/5-73-012e
Horton, W. S. EPA-600/2-76-007
Horvath, S. M. EPA-600/1-76-001
Hosenfeld, J. M. EPA-650/1-74-003
Hosenfield, J. M. EPA-600/1-76-019
Householder, M. K. EPA-660/2-73-032
Howell, M. P. EPA-600/5-75-013
Howell, M. P. EPA-600/5-75-002
Howes, J. R. EPA-670/2-73-041
Hoyland, J. R. EPA-660/2-74-004
Hoyland, J. R. EPA-660/2-74-048
Hoyt, A. EPA-650/2-75-003
Hoyt, A. EPA-650/4-75-017
Hoyt, A. EPA-650/4-75-020
Hoyt, A. EPA-650/4-75-025
Hrutfiord, B. F. EPA-660/2-75-028
Hrutfiord, B. F. EPA-660/2-74-069
Huang, C. EPA-600/2-75-033
Huang, C. H. EPA-670/2-75-037
Hubber, C. O. EPA-670/2-73-079
Huber, E. E. EPA-600/1-76-006
Huber, W. C. EPA-600/5-74-013
Huber, W. C. EPA-670/2-75-017
Huber, W. C. EPA-670/2-75-022
Hudson, J. F. EPA-670/2-75-026b
Hudson, J. F. EPA-670/2-75-026a
Huff, J. E. EPA-600/2-76-009
Hufschmidt, M. M. EPA-600/5-73-015
Hughes Jr., E. E. EPA-600/2-74-002
Hughes, E. E. EPA-600/2-75-009
Huisking, T. EPA-600/2-75-018
Humbel, D. E. EPA-660/2-73-017
Hundal, M. S. EPA-660/3-75-037
Hunt, G. W. EPA-660/3-74-006
Hunter, H. E. EPA-600/3-76-034
Hurn, R. W. EPA-600/2-76-026

PERSONAL AUTHOR INDEX

Hutchinson, G. L.	EPA-660/2–75–015
Ifeader, C.	EPA-600/5–74–016
Ifeadi, C.	EPA-670/2–75–058
Ifeadi, C. N	EPA-670/2–75–049
Iglar, A. F.	EPA-670/2–73–048
Ingersol, C.	EPA-600/3–75–003b
Ingersol, C.	EPA-600/3–75–003a
Ingersoll, R. B.	EPA-650/2–73–043
Irwin, J. S.	EPA-600/4–75–004
Irwin, W. A.	EPA-600/5–74–025
Irwin, W. A.	EPA-600/5–74–026
Isaacs, G. A.	EPA-600/2–76–013b
Isaacs, G. A.	EPA-600/2–76–013a
Isaacs, G. A.	EPA-650/2–75–057j
Isaacs, G. A.	EPA-650/2–75–057g
Isaacs, G. A.	EPA-650/2–75–057i
Isaacs, G. A.	EPA-650/2–75–057k
Isaacs, G. A.	EPA-650/2–75–057f
Isaacs, G. A.	EPA-650/2–75–057h
Isaacs, G. A.	EPA-650/2–75–057e
Iura T.	EPA-650/2–73–014
Jabb, D. C.	EPA-660/3–74–014
Jackson, B. S.	EPA-600/2–75–074
Jackson, K.	EPA-660/2–74–087
Jacob, B. L.	EPA-660/2–74–019
Jacobs, T. O.	EPA-670/2–73–086
Jacobsen, J. E.	EPA-600/5–75–014
Jacobsen, W. E.	EPA-600/2–75–007
Jahnig, C. E.	EPA-650/2–74–009m
Jahnig, C. E.	EPA-650/2–74–009a
Jahnig, C. E.	EPA-650/2–74–009h
Jahnig, C. E.	EPA-650/2–74–009j
Jahnig, C. E.	EPA-650/2–74–009i
Jakobsen, R. J.	EPA-600/2–76–072
Jaksch, J. A.	EPA-600/5–74–017
Jamgochian, E. M.	EPA-600/2–75–011
Jamgochian, E. M.	EPA-600/2–75–037
Jarmuth, R. A.	EPA-660/2–73–023
Jarvis, A. N.	EPA-680/4–75–007
Jaryinen, A. W.	EPA-660/3–74–024
Jaworski, E.	EPA-660/3–74–029
Jaye, F.	EPA-650/2–74–013
Jedlicka, C.	EPA-660/2–73–004
Jensen, M. E.	EPA-600/2–75–064
Jewell, W. J.	EPA-660/2–75–019
Jhaveri, N.	EPA-600/2–75–018
Jhaveri, N.	EPA-650/2–73–036
Johannsen, G. L.	EPA-670/2–75–027
Johannson, G. L.	EPA-670/2–74–077
Johanson, L. N.	EPA-660/2–74–069
Johndrew Jr., O. F.	EPA-660/2–75–019
Johns, F. B.	EPA-680/4–75–001
Johnson Jr., J. S.	EPA-600/2–76–025
Johnson, D. E.	EPA-600/1–76–019
Johnson, D. E.	EPA-650/1–74–003
Johnson, L. D.	EPA-650/2–74–050
Johnson, R. O.	EPA-600/4–76–002
Johnson, T. E.	EPA-650/2–74–012
Johnson, W. B.	EPA-650/4–73–002
Johnston, D. R.	EPA-600/5–74–009
Johnston, H. S.	EPA-650/4–74–004
Johnston, M. T.	EPA-600/2–76–091
Jokela, A.	EPA-600/5–74–023
Jolley, R.	EPA-660/2–74–076
Jones, D. C.	EPA-600/2–75–068
Jones, D. C.	EPA-600/2–76–064
Jones, I. S. F.	EPA-660/2–74–082
Jones, M. V.	EPA-600/2–75–045
Jones, P. W.	EPA-600/2–76–072
Jones, R.	EPA-600/2–75–045
Jones, R. H.	EPA-600/2–75–049
Jones, R. H.	EPA-600/3–76–003
Jones, R. H.	EPA-660/2–75–001
Jones, R. S.	EPA-600/3–76–027
Jones, R. S.	EPA-660/3–73–005
Jones, W. J.	EPA-600/2–76–044b
Jones, W. J.	EPA-600/2–76–044a
Jordan, D. M.	EPA-670/2–74–097
Jordening, D. L.	EPA-600/5–73–008a
Jordening, D. L.	EPA-600/5–73–008b
Jordening, D. L.	EPA-600/5–74–014
Jordening, D. L.	EPA-600/5–74–028
Jorgensen, R.	EPA-600/5–74–019
Jorque, M. A.	EPA-660/2–74–077
Joseph, D. W.	EPA-600/3–76–018
Joyce, J. M.	EPA-670/2–74–037
Joyce, M.	EPA-670/2–75–045
Juhos, L. T.	EPA-600/1–76–009
Juhos, L. T.	EPA-600/1–76–021
Julian, E. C.	EPA-670/4–75–004b
Julian, E. C.	EPA-670/4–75–004a
Justice, C. A.	EPA-660/3–73–015
Kah, R. C.Y.	EPA-660/2–73–029
Kahler, J. P.	EPA-600/4–75–004
Kahn, B.	EPA-670/4–75–006
Kahn, H. A.	EPA-650/2–74–098a
Kaiser, E. J.	EPA-600/5–73–015
Kaiser, E. L.	EPA-670/2–73–023
Kalfadelis, C. D.	EPA-650/2–74–009b
Kalfadelis, C. D.	EPA-650/2–74–0091
Kambhu, K.	EPA-670/2–73–061
Kania, H. J.	EPA-660/3–73–025
Kany, S. J.	EPA-600/2–75–029
Kaplovsky, A. J.	EPA-670/2–73–027
Karandikar, S.	EPA-670/2–73–011
Kardos, L. T.	EPA-660/2–74–003
Kardos, L. T.	EPA-660/2–74–016
Karuvian, J. F.	EPA-680/4–74–002
Katz, S.	EPA-660/2–74–076
Kaufman, J. A.	EPA-670/2–75–031
Keairns, D. L.	EPA-650/2–75–027c
Keefe, M.	EPA-600/3–75–003a
Keefer, M.	EPA-600/3–75–003b
Keeney, D. R.	EPA-660/3–73–024
Keier, P. M.	EPA-670/2–74–037
Keil, S. L.	EPA-600/2–76–012b
Keil, S. L.	EPA-600/2–76–012a
Keith, L. W.	EPA-660/4–75–005
Keitz, E. L.	EPA-600/2–74–004
Kelly, J. A.	EPA-670/2–73–030
Kendall, D. A.	EPA-650/2–73–025
Kenney, B. C.	EPA-660/2–74–082
Kent, G. C.	EPA-670/2–74–067
Kern, P. L.	EPA-670/2–75–016
Kesselring, J. P.	EPA-600/2–76–037
Kesselring, R. C.	EPA-650/2–74–023
Kessler, M. M.	EPA-600/2–76–044a
Kessler, M. M.	EPA-600/2–76–044b
Ketchum, L. A.	EPA-670/2–74–047
Keys, J. M.	EPA-600/5–74–024
Khattat, F. H.	EPA-600/3–76–033
Kimbrough, R. D.	EPA-660/2–75–017
Kimmelstein, B.	EPA-600/5–73–012e
Kincannon, B.	EPA-600/5–74–032
King, A. H.	EPA-660/2–73–018
King, L. G.	EPA-660/2–75–005

PERSONAL AUTHOR INDEX

Kingston, J. C.	EPA-660/3-75-004
Kinney, P. J.	EPA-660/3-75-026
Kirchmer, C. J.	EPA-660/2-74-021
Kirkpatrick, G. A.	EPA-600/2-75-027
Kirkpatrick, G. A.	EPA-600/2-75-065
Kittelson, D. B.	EPA-650/3-73-002
Klein, D. H.	EPA-660/2-73-008
Klein, E.	EPA-670/1-75-001
Klett, M. G.	EPA-600/2-76-079
Klug, W.	EPA-600/4-75-006
Knapp, K. T.	EPA-600/2-76-033
Knight, J. A.	EPA-600/2-76-090
Knittel, M. D.	EPA-660/2-75-024
Knudson, W.	EPA-660/2-74-088
Kobayashi, S.	EPA-670/2-74-063
Koch, C.	EPA-600/2-75-062
Kocmond, W. C.	EPA-650/3-73-002
Kodras, F. D.	EPA-600/2-76-010
Koehler, G.	EPA-600/2-75-057
Koehrsen, L. G.	EPA-660/2-74-014
Koenst, W. M.	EPA-660/3-75-017
Kollig, H. P.	EPA-600/3-76-001
Kolmsberg, H. J.	EPA-600/2-76-089a
Kolpin, M.	EPA-600/2-75-012
Koogler, J. B.	EPA-650/2-73-007
Kopp Jr., C. V.	EPA-660/2-73-033
Koppel, L. M.	EPA-600/5-75-001
Kos, P.	EPA-670/2-74-037
Koscianowska, L.	EPA-600/2-76-074
Koscianowski, J. R.	EPA-600/2-76-074
Kothny, E. L.	EPA-600/2-76-059
Kovacic, P. K.	EPA-600/3-76-036
Kraft, M. L.	EPA-650/2-74-025a
Kraft, M. L.	EPA-650/2-74-025
Krajeski, E. P.	EPA-600/2-74-004
Krajeski, E. P.	EPA-600/2-75-011
Kramer, M.	EPA-670/2-74-078
Kraus, K. A.	EPA-600/2-76-025
Krause, H. H.	EPA-670/2-74-084
Krause, H. H.	EPA-670/2-74-083
Krause, H. H.	EPA-670/2-75-058
Kreissl, J. F.	EPA-600/2-75-036
Kreusch, E.	EPA-660/2-74-007
Kroner, R. C.	EPA-670/4-74-008
Krope, E.	EPA-600/2-74-001
Kropp, E. L.	EPA-600/2-75-067
Kropp, E. L.	EPA-600/2-75-073
Krueger, W. F.	EPA-670/2-73-041
Kuhner, J.	EPA-670/2-74-038
Kuhner, J.	EPA-670/2-74-065
Kuhner, J.	EPA-670/2-74-068
Kuhns, R. E.	EPA-600/2-76-022
Kuhrtz, S.	EPA-670/2-73-011
Kurg, E. K.	EPA-670/2-74-043
Kursch, S. J.	EPA-600/5-73-012c
Kurtz, B. E.	EPA-600/2-76-053
La Rosa, P. J.	EPA-670/2-74-001
Lackey, L. L.	EPA-670/2-73-086
Lager, J. A.	EPA-670/2-74-040
Lager, J. A.	EPA-670/2-74-090
Lake, C.	EPA-600/2-75-074
Lakomski, T. D.	EPA-670/2-74-091
Lamb, T. J.	EPA-600/2-75-016
Lamborn, K. R.	EPA-660/3-75-037
Lamothe, P. J.	EPA-600/3-76-035
Lancy, L. E.	EPA-670/2-75-015
Landreth, R.	EPA-670/2-75-005
Landreth, R. E.	EPA-670/2-74-088
Landrigan, R. B.	EPA-670/2-75-055
Lang, E. W.	EPA-660/2-75-004
Larson, D. H.	EPA-650/2-73-033b
Larson, D. H.	EPA-650/2-73-033a
Larson, R.	EPA-660/2-75-008
Larson, T. E.	EPA-670/2-73-029
Lassiter, R. R.	EPA-660/3-75-012
Laster, L. L.	EPA-650/2-73-046
Lauch, R. P.	EPA-600/4-75-012
Lauch, R. P.	EPA-670/4-74-007
Lauch, R. P.	EPA-670/4-75-001
Lauch, R. P.	EPA-670/4-75-003
Laughlin, J. E.	EPA-670/2-73-060
Laver, M. L.	EPA-670/2-73-005
Lavergne, E. A.	EPA-600/2-74-006
Lawhon, W.	EPA-600/5-74-016
Lawhon, W. T.	EPA-600/2-76-056
Lawless, E. W.	EPA-670/2-75-057
Lawless, P. A.	EPA-600/2-76-034
Lawson Jr., R. E.	EPA-600/4-76-001
LaBeau, B.	EPA-670/2-73-103
LaGrone, F. S.	EPA-600/5-76-001
Leary, R. D.	EPA-670/2-73-050
Leatherwood, J. M.	EPA-670/2-73-090
Lebowitz, H. E.	EPA-650/2-75-038
Lechevalier, H. A.	EPA-600/2-75-031
Leckie, J. O.	EPA-670/2-73-010
Lee J. H.	EPA-660/3-75-015
Lee, A. A.	EPA-650/2-74-025
Lee, G. F.	EPA-660/3-75-022
Lee, J. M.	EPA-660/3-75-016
Lee, S. H.	EPA-670/2-73-082
Lee, W. L.	EPA-660/3-75-013
Leekley, R. M.	EPA-660/2-74-029
Lefohn, A. S.	EPA-600/3-76-013
Lefohn, A. S.	EPA-600/3-76-002
Leiro, C. C.	EPA-650/2-74-010
Leith, D.	EPA-600/2-76-020
Leith, D.	EPA-650/2-73-036
Lemer, A.	EPA-600/5-74-001
Lenhart, C. F.	EPA-600/2-75-039
Lenny, J.	EPA-660/2-74-054
Leo, P. P.	EPA-600/2-76-070
Leonard, J. W.	EPA-670/2-74-002
Leonard, R. P.	EPA-600/2-76-031
Leonard, R. P.	EPA-670/2-75-042
Letchworth, M.	EPA-600/3-76-031
Lett, R.	EPA-600/2-76-075
Leung, J.	EPA-650/2-74-119b
Levaguerese, P.	EPA-600/2-76-061a
Levia, J. E.	EPA-660/2-73-026
Levine, S.	EPA-660/3-75-021
Levins, P. L.	EPA-650/2-73-032
Levins, P. L.	EPA-650/2-73-023
Levins, P. L.	EPA-650/2-73-025
Levins, P. L.	EPA-670/2-74-086
Levis, A. H.	EPA-670/2-75-030
Lewellen, W. S.	EPA-600/4-75-016b
Lewellen, W. S.	EPA-600/4-75-016a
Lewis, C. S.	EPA-600/5-73-012d
Lewis, D. H.	EPA-600/5-74-003
Lewis, D. L.	EPA-660/3-75-007
Lewis, P. A.	EPA-670/4-74-006
Lewis, R. A.	EPA-600/3-76-002
Lewis, R. A.	EPA-600/3-76-013
Lewis, R. F.	EPA-670/9-75-004
Lezenga, D. R.	EPA-660/3-74-028
Li, R. T.	EPA-600/2-75-041

PERSONAL AUTHOR INDEX

Libby Jr., K.	EPA-670/2–74–044
Lichtenberg, J. J.	EPA-670/4–74–009
Lichtenberg, J. J.	EPA-670/4–74–008
Lick, W.	EPA-600/3–76–020
Liddle, C. G.	EPA-600/1–76–007
Liebman, J. C.	EPA-670/2–74–036a
Lighthart, B.	EPA-660/3–75–036
Lillard, D. A.	EPA-660/4–75–002
Linstedt, K. D.	EPA-600/9–75–007
Lipper, R. I.	EPA-660/2–75–013
Lippert, T. E.	EPA-670/2–74–017
Lippy, E. C.	EPA-600/1–75–003
Lipscomb, W. O.	EPA-650/2–74–058a
Liroff, R. A.	EPA-600/5–74–026
Liroff, R. A.	EPA-600/5–74–025
Liskowitz, J. W.	EPA-670/2–75–002
Little, R. L.	EPA-670/4–74–003a
Liu, B. C.	EPA-600/5–75–016
Liu, B. J. H.	EPA-600/2–75–059
Liu, D. H.	EPA-660/3–75–016
Liu, D. H. W.	EPA-660/2–74–036
Liu, D. T.	EPA-600/4–76–009
Llewellyn, L.	EPA-600/5–75–012a
Lloyd, S. R.	EPA-600/3–76–025
Locklin, D. W.	EPA-600/2–75–069a
Locklin, D. W.	EPA-600/2–76–088
Loehr, R. C.	EPA-660/2–75–019
Loehu, P. Y.	EPA-660/2–74–063
Loop, G. C.	EPA-660/2–75–020
Lotspeich, F. B.	EPA-660/3–75–020
Lotspeich, F. B.	EPA-660/3–74–009
Lovell, H. L.	EPA-670/2–73–093
Lowe, R. L.	EPA-670/4–74–005
Lowes, T. M.	EPA-600/2–76–061a
Luciani, D.	EPA-600/2–75–012
Ludwig, C. B.	EPA-650/2–73–026
Ludwig, F. L.	EPA-650/3–73–001
Lueck, B. F.	EPA-660/2–73–030
Luecke, D. F.	EPA-600/5–75–001
Lund, D. B.	EPA-660/2–74–006
Lundberg, K. R.	EPA-660/2–75–026
Lunsford, J. H.	EPA-650/3–74–006
Lustig, M.	EPA-600/3–76–012
Lykins Jr., B. W.	EPA-600/2–76–018
Maase, D. L.	EPA-670/2–75–049
Mack, E. J.	EPA-600/2–76–031
Macon, J.	EPA-660/2–74–031
MacDonald, D.	EPA-600/5–75–017
MacIntyre, W. G.	EPA-670/2–73–099
Maddaus, W.	EPA-600/2–75–033
Madden, P.	EPA-600/2–75–040
Magee, E. M.	EPA-650/2–74–0091
Magee, E. M.	EPA-650/2–74–009a
Magee, E. M.	EPA-650/2–74–009k
Magee, E. M.	EPA-650/2–74–009b
Maggiolo, A.	EPA-660/2–75–016
Maher, M.	EPA-670/2–74–049
Mahida, V. U.	EPA-670/2–75–010
Mahlman, H. A.	EPA-600/2–76–025
Maigetter, R. Z.	EPA-650/1–73–002
Maizus, S.	EPA-670/2–75–068
Major, R. L.	EPA-600/2–76–076
Makrides, A. C.	EPA-600/5–75–013
Makrides, A. C.	EPA-600/5–75–002
Malcolm, D. G.	EPA-600/5–75–017
Malisch, W. R.	EPA-670/2–73–038
Malisch, W. R.	EPA-670/2–75–053
Mallatt, R. C.	EPA-660/2–75–025
Mallove, E.	EPA-600/2–75–054
Manabe, R.	EPA-660/2–73–039
Mancuso, R. L.	EPA-650/3–73–001
Mangarella, P. A.	EPA-670/2–75–065
Manges, H. L.	EPA-660/2–75–013
Manny, E. H.	EPA-600/2–75–053
March, F.	EPA-670/2–75–024
Marcus, H. J.	EPA-660/2–74–036
Margeson, J. H.	EPA-600/4–75–003
Markle, R. A.	EPA-670/2–75–058
Markley, O. W.	EPA-600/5–75–012
Markowski, G. R.	EPA-600/2–76–062
Marks, D. H.	EPA-670/2–75–026b
Marks, D. H.	EPA-670/2–75–026a
Marrone, W. A.	EPA-650/2–74–008a
Marshall, D. W.	EPA-670/2–74–076b
Marshall, H. E.	EPA-600/5–74–031
Martel, C. J.	EPA-670/2–74–065
Martin, D. B.	EPA-660/3–75–010
Martin, D. J.	EPA-600/2–76–071
Martin, E. J.	EPA-670/2–74–073
Martin, E. J.	EPA-670/2–74–013
Martin, E. J.	EPA-670/2–75–056
Martin, G. B.	EPA-650/2–73–031
Martin, K. L.	EPA-660/2–73–017
Mason, G. J.	EPA-670/2–74–061
Mason, H. B.	EPA-600/2–75–046
Massaro, E. J.	EPA-660/3–74–027
Massucco, A. A.	EPA-650/2–73–032
Masters, H. E.	EPA-600/2–76–095
Mathews, J. C.	EPA-600/2–76–008
Mathur, G. K.	EPA-650/2–74–098a
Matthew, F. L.	EPA-670/2–73–088
Mattson, V. R.	EPA-600/3–75–012
Maudlin, A. F.	EPA-660/2–74–061
Maxwell, M. A.	EPA-650/2–73–038
Mayer Jr., F. L.	EPA-600/3–75–013
Mayer, J. F.	EPA-600/2–75–063
Mayer, R.	EPA-600/2–76–078
Mayes, J.	EPA-670/2–74–057
Mazzella, G.	EPA-600/2–75–078
McCain, J. D.	EPA-600/2–75–056
McCain, J. D.	EPA-650/2–73–035
McCain, J. D.	EPA-650/2–74–028
McCain, J. D.	EPA-650/2–74–102a
McCall, A. C.	EPA-660/2–73–034
McCalla, T. M.	EPA-660/2–75–015
McCann, C.	EPA-650/2–74–038
McCann, R. A.	EPA-650/2–74–011
McCarthy, J. L.	EPA-660/2–74–069
McCauley, B.	EPA-660/9–74–001
McClenny, W. A	EPA-650/2–74–046b
McCoy, J.	EPA-650/2–73–023
McCoy, R. H.	EPA-600/3–76–021
McDermott, R. G.	EPA-670/5–73–021
McDonald, H.	EPA-650/2–73–045
McElroy, A. D.	EPA-600/5–75–004
McElroy, F. F.	EPA-600/4–75–010
McElroy, S. W.	EPA-600/5–74–020
McFarlane, J. C.	EPA-600/3–76–006
McFarlane, J. C.	EPA-680/4–75–006
McGarvey, R. J.	EPA-670/2–74–001
McGlamery, G. G.	EPA-600/2–75–006
McIlhenny, W. F.	EPA-660/3–74–019
McIlhenny, W. F.	EPA-660/3–73–006
McIlheny, W. F.	EPA-660/2–75–021
McIntyre, C.	EPA-670/2–74–015
McKean, W. T.	EPA-650/2–74–005

PERSONAL AUTHOR INDEX

McKee, H. C.	EPA-660/3-74-026
McKee, M.	EPA-600/5-74-021
McKenna, J. D.	EPA-650/2-74-058a
McKnight, J. S.	EPA-600/2-75-022
McLay, R. W.	EPA-660/3-75-037
McMahon, T. S.	EPA-670/2-74-053
McMichael, W. F.	EPA-670/2-74-010
McMichael, W. F.	EPA-670/2-74-011
McMichael, W. F.	EPA-670/2-74-006
McNabb, J. F.	EPA-660/2-73-014
McNaught, D. C.	EPA-660/3-75-021
McNelis, D. N.	EPA-680/4-74-001
McWhorter, D. B.	EPA-670/2-75-048
Meadows, E. U.	EPA-650/2-73-007
Meakin, J. D.	EPA-650/2-73-016
Medina, M. A.	EPA-670/2-75-022
Medina, M. A.	EPA-670/2-75-017
Mehrle Jr., P. M.	EPA-600/3-75-013
Meier, P. G.	EPA-600/3-75-009
Meier, P. M.	EPA-670/2-74-038
Meier, P. M.	EPA-670/2-74-065
Meier, P. M.	EPA-670/2-74-066
Meier, P. M.	EPA-670/2-74-068
Meiners, A. F.	EPA-670/2-75-057
Meisel, W. S.	EPA-650/4-74-001
Mekinda, M.	EPA-660/2-74-083
Melcher, A. G.	EPA-600/5-75-008
Meloy, T. P.	EPA-670/2-73-068
Melville, J. G.	EPA-600/2-76-050
Melvin, P.	EPA-670/2-75-003
Melvin, P.	EPA-670/2-75-044
Melvin, P.	EPA-670/2-75-059
Mentz, J. W.	EPA-670/2-75-047
Menzies, J. D.	EPA-600/2-75-034
Mercer, B. W.	EPA-670/2-73-078
Mercer, W. A.	EPA-660/2-74-091
Meredith, O. M.	EPA-600/2-76-068b
Meredith, O. M.	EPA-600/2-76-068a
Merritt, L. B.	EPA-660/2-75-007
Merryman, L.	EPA-660/2-75-003
Metcalf, R. L.	EPA-600/1-76-002
Meyer, C. F.	EPA-600/4-73-001b
Meyer, J. W.	EPA-600/2-76-044b
Meyer, J. W.	EPA-600/2-76-044a
Meyers, R. A.	EPA-650/2-74-025
Meyers, S. P.	EPA-660/3-75-001
Michalovic, J. G.	EPA-670/2-75-042
Middlebrooks, E. J.	EPA-670/9-75-004
Middleton, W. M.	EPA-600/4-75-007
Miele, R. P.	EPA-600/2-75-047
Mielke, L. N.	EPA-660/2-75-015
Milgrom, J.	EPA-670/5-74-003
Miller Jr., H. H.	EPA-660/2-74-011
Miller, B. F.	EPA-670/2-73-009
Miller, C. J.	EPA-650/5-73-002
Miller, D. W.	EPA-660/2-74-056
Miller, D. W.	EPA-660/3-75-018
Miller, E. C.	EPA-660/2-74-057
Miller, E. L.	EPA-670/2-75-037
Miller, N. T.	EPA-600/2-75-037
Miller, P. D.	EPA-670/2-73-032
Miller, R. H.	EPA-670/2-74-074
Miller, R. L.	EPA-660/2-75-004
Milliman, G. E.	EPA-650/2-74-0091
Mills, M. T.	EPA-600/2-76-069
Mills, T. R.	EPA-660/2-74-071
Miner, J. R.	EPA-660/2-74-009
Miner, J. R.	EPA-660/2-74-023
Miner, J. R.	EPA-670/2-73-025
Minton, G. L.	EPA-670/2-74-061
Mitchell, R. C.	EPA-670/2-73-031
Mitchell, R. I.	EPA-600/4-75-009
Miura, R.	EPA-660/2-74-021
Modell, M.	EPA-600/2-75-063
Moden, D. D.	EPA-600/4-75-015
Moffa, P. E.	EPA-670/2-75-021
Moghissi, A. A.	EPA-680/4-74-001
Mole, J. W.	EPA-670/2-74-036b
Molvar, A. E.	EPA-670/2-73-104
Molvar, A. E.	EPA-670/2-74-087
Monaghan, D. A.	EPA-670/2-74-021
Moomau, H. F.	EPA-670/2-74-002
Moore, D. O.	EPA-650/2-74-012
Moore, J.	EPA-600/5-74-016
Moore, J. G.	EPA-600/5-73-011
Moore, R. V.	EPA-660/2-74-045
Morgan, D. R.	EPA-650/2-74-046a
Morgan, G. B.	EPA-680/4-75-008
Morin, D. C.	EPA-670/2-75-011
Mornea, G. A.	EPA-670/2-74-030
Morris, J. C.	EPA-600/1-75-002
Morrison, D. E.	EPA-600/5-74-011
Morrison, J. E.	EPA-670/2-73-074
Morrison, S. M.	EPA-660/2-73-017
Morrow, J. E.	EPA-660/3-73-018
Mosley, R. E.	EPA-600/3-76-025
Mote, L. B.	EPA-600/2-75-045
Moyer, C. B.	EPA-600/2-76-037
Moyer, J. E.	EPA-660/2-74-066
Moyer, J. E.	EPA-660/2-74-065
Mrosla, E.	EPA-660/3-75-014
Mudge, L. K.	EPA-670/2-75-014
Mueller, E. W.	EPA-660/3-75-020
Mueller, E. W.	EPA-660/3-75-019
Mueller, H. F.	EPA-670/2-73-029
Mullaney, J. L.	EPA-670/9-75-008
Mullen, A. A.	EPA-600/3-76-025
Mullen, K. T.	EPA-600/4-75-001
Mullins, J. W.	EPA-600/4-75-015
Munday, J. C.	EPA-670/2-73-099
Murfee, G.	EPA-660/2-73-025b
Murphy, J. S.	EPA-600/2-74-007
Murphy, J. S.	EPA-600/2-75-005
Murphy, L. S.	EPA-660/2-75-010
Murphy, L. S.	EPA-660/2-75-013
Murphy, T. J.	EPA-600/3-75-005
Murray, R. G.	EPA-600/2-75-009
Murray, R. G.	EPA-600/2-75-070
Murthy, V. K.	EPA-600/1-76-015
Muzio, L. J.	EPA-600/2-76-086a
Mycock, J. C.	EPA-650/2-74-058a
Myers, E.	EPA-660/2-74-016
Myranowski, J. A.	EPA-600/5-74-018
Nack, H.	EPA-650/2-75-038
Nader, J. S.	EPA-650/2-74-013
Nagda, N. L.	EPA-600/2-76-063
Nagel, C. A.	EPA-600/2-75-058
Narahashi, T.	EPA-600/1-76-005
Narbozgi, A. D.	EPA-660/2-73-020
Nash, C. E.	EPA-660/3-75-015
Nawrocki, M. A.	EPA-600/2-73-002
Nawrocki, M. A.	EPA-660/2-73-035
Nawrocki, M. A.	EPA-660/2-74-072
Nawrocki, M. A.	EPA-660/2-74-071
Nawrocki, M. A.	EPA-660/2-74-073
Neel, J. K.	EPA-660/3-73-001

PERSONAL AUTHOR INDEX

Negas, T.	EPA-600/2-76-007
Neher, M. B.	EPA-660/2-74-048
Nekervis, W. F.	EPA-600/2-75-051
Nelson Jr., A. C.	EPA-650/4-74-005a
Nelson Jr., J. D.	EPA-600/3-75-007
Nelson, D.	EPA-660/2-74-043
Nelson, G. R.	EPA-660/2-74-089
Nelson, O. F.	EPA-670/2-75-019
Nelson, T. P.	EPA-600/2-75-068
Nelson, T. P.	EPA-600/2-76-064
Nelson, T. P.	EPA-600/2-76-012a
Nelson, T. P.	EPA-600/2-76-012b
Nesbitt, J.	EPA-660/2-74-016
Neshein, E. E.	EPA-670/2-73-088
Neveril, R. B.	EPA-670/2-74-043
Newher, M. B.	EPA-660/2-74-004
Newport, B. D.	EPA-660/2-74-066
Nichols, C. B.	EPA-600/2-75-056
Nickerson, J. D.	EPA-600/2-76-045
Nilan, R. E.	EPA-600/2-75-074
Nordberg, G.	EPA-600/1-75-004
Norstadt, F. A.	EPA-660/2-75-015
Novotny, J. F.	EPA-660/3-75-010
Nutkis, M. S.	EPA-650/2-74-001
Nwankwo, J. N.	EPA-600/2-76-021
O'Brien, P. J.	EPA-670/2-74-086
O'Connor, D. J.	EPA-660/3-73-009
O'Donnell, J. J.	EPA-650/2-74-098a
O'Farrell, T. P.	EPA-670/2-73-040
O'Grady, T. J.	EPA-670/2-74-091
O'Herron, R. J.	EPA-670/4-73-018
O'Herron, R. J.	EPA-670/4-74-001
O'Herron, R. J.	EPA-670/4-75-005
O'Kelley, J. C.	EPA-600/3-76-022
O'Melia, C. R.	EPA-670/2-74-032
Oberacker, D. A.	EPA-670/2-75-025
Ogea, J.	EPA-660/2-73-018
Ojala, C.	EPA-660/3-74-029
Okuda, A. S.	EPA-600/2-76-038
Oliver, E. D.	EPA-600/2-76-084
Olsen, M. B.	EPA-600/5-73-012d
Olson, D. T.	EPA-600/3-75-012
Omernik, J. M.	EPA-600/3-76-014
Ongerth, R. H.	EPA-670/5-74-005
Opferkuch, R. E.	EPA-600/2-76-042
Oppelt, E. T.	EPA-600/2-75-036
Orszag, S. A.	EPA-600/4-76-007
Ottinger, R. S.	EPA-670/2-73-053L
Ottinger, R. S.	EPA-670/2-73-053A
Ottinger, R. S.	EPA-670/2-73-053I
Ottinger, R. S.	EPA-670/2-73-053K
Ottinger, R. S.	EPA-670/2-73-053A-P
Ottinger, R. S.	EPA-670/2-73-053C
Ottinger, R. S.	EPA-670/2-73-053G
Ottinger, R. S.	EPA-670/2-73-053D
Ottinger, R. S.	EPA-670/2-73-053J
Ottinger, R. S.	EPA-670/2-73-053F
Ottinger, R. S.	EPA-670/2-73-053B
Ottinger, R. S.	EPA-670/2-73-053O
Ottinger, R. S.	EPA-670/2-73-053H
Ottinger, R. S.	EPA-670/2-73-053E
Ottinger, R. S.	EPA-670/2-73-053N
Ottinger, R. S.	EPA-670/2-73-053P
Ottinger, R. S.	EPA-670/2-73-053M
Owen, M. L.	EPA-600/2-76-012a
Owen, M. L.	EPA-600/2-76-012b
Owen, P. H.	EPA-670/2-75-028
Oxley, J. H.	EPA-650/2-75-038
Pade, B.	EPA-660/2-74-083
Page, A. L.	EPA-670/2-74-005
Paik, I.	EPA-600/5-74-020
Pamatmat, M. M.	EPA-660/3-73-005
Pan, Y. C.	EPA-600/2-76-057
Pantazelos, T. G.	EPA-670/2-75-004
Paris, D. F.	EPA-600/3-76-001
Paris, D. F.	EPA-660/3-75-007
Park, W. R.	EPA-600/5-74-007
Park, W. R.	EPA-660/2-74-047
Parkasam, T. B. S.	EPA-660/2-74-063
Parker, F. L.	EPA-660/2-73-012
Parker, F. L.	EPA-660/3-75-038
Parker, G. B.	EPA-660/2-74-009
Parker, H. W.	EPA-660/2-74-090
Parker, L. W.	EPA-600/2-75-054
Parkhurst, J. D.	EPA-670/2-73-043
Parkinson, F. E.	EPA-600/2-75-062
Parks, J. W.	EPA-670/2-74-079
Parsons, T.	EPA-600/2-76-051g
Parsons, T.	EPA-600/2-76-051c
Parsons, T.	EPA-600/2-76-051a
Parsons, T.	EPA-600/2-76-051b
Parsons, T.	EPA-600/2-76-051e
Patel, V. C.	EPA-600/2-76-050
Pathak, A. A.	EPA-670/5-74-007
Patmore, L. C.	EPA-660/2-73-003
Patrick, R.	EPA-660/2-75-008
Patterson, J.	EPA-600/2-74-009c
Patterson, J.	EPA-600/2-74-009b
Patterson, J.	EPA-600/2-74-009a
Pattnaik, A.	EPA-650/2-73-016
Patzer, R. G.	EPA-680/4-74-001
Pavia, E. H.	EPA-670/2-73-067
Payne, T. R.	EPA-600/3-76-008
Payne, W. R.	EPA-660/2-74-017
Peabody, F. P.	EPA-660/2-74-057
Pearson, E. F.	EPA-660/2-74-050
Pek, S. L.	EPA-670/2-75-042
Pellizzari, E. D.	EPA-600/2-75-076
Peltz, W. A.	EPA-670/2-75-017
Peltz, W. A.	EPA-670/2-75-022
Pembrook, J. D.	EPA-600/2-75-024
Pembrook, J. D.	EPA-650/2-73-030
Pengidore, D.	EPA-600/2-75-014
Pengidore, D. A.	EPA-650/2-73-028
Penose Jr., R. G.	EPA-670/2-73-081
Penrod, L.	EPA-660/2-74-087
Pepper, J.	EPA-600/5-74-019
Perez, A. I.	EPA-600/5-74-013
Perrotte, W.	EPA-670/2-74-063
Pershing, D. W.	EPA-650/2-73-031
Pershing, D. W.	EPA-650/2-73-029
Peters, A. W.	EPA-660/2-75-025
Peters, E. T.	EPA-650/2-73-023
Petersack, J. F.	EPA-670/2-75-039
Petersen, W. B.	EPA-600/4-75-004
Peterson, H. C.	EPA-670/2-75-016
Peterson, M. L.	EPA-670/2-73-001
Peterson, S.	EPA-660/9-74-002
Peterson, S. A.	EPA-660/3-73-001
Peterson, S. A.	EPA-660/3-74-032
Pfeffer, F. M.	EPA-660/2-74-067
Pfeffer, J. T.	EPA-670/2-74-016
Phillips, J. H.	EPA-660/3-75-013
Phillips, S. A.	EPA-670/2-73-022
Pidot, G.	EPA-600/5-74-027
Pievge, J. D.	EPA-660/2-74-057

PERSONAL AUTHOR INDEX

Pilcher, K. S.	EPA-600/3-76-021
Pilcher, K. S.	EPA-660/3-73-020
Pilie, R. J.	EPA-670/2-75-042
Piscator, M.	EPA-600/1-75-004
Pitt, W.	EPA-660/2-74-076
Plyler, E. L.	EPA-650/2-73-038
Poe, G. G.	EPA-600/2-75-046
Pohland, F. G.	EPA-600/2-75-043
Pohland, F. G.	EPA-600/2-75-029
Polcyn, F. C.	EPA-660/3-74-028
Pomeroy, B. S.	EPA-660/2-75-012
Pomeroy, B. S.	EPA-670/2-73-051
Pontuies, U. R.	EPA-670/2-73-067
Porcella, D. B.	EPA-600/5-74-010
Porter, J. J.	EPA-600/2-76-060
Porter, L. K.	EPA-660/2-75-015
Posner, J. C.	EPA-670/2-75-061
Pound, C. E.	EPA-660/2-73-006a
Pound, C. E.	EPA-660/2-73-006b
Powers, C. F.	EPA-660/3-74-032
Powers, C. F.	EPA-660/3-74-015
Powers, J. J.	EPA-660/4-75-002
Powers, W. L.	EPA-660/2-75-010
Powers, W. L.	EPA-660/2-75-013
Pows, B. L.	EPA-660/3-73-006
Prescott, G. W.	EPA-660/3-74-023
Pressley, T. A.	EPA-670/2-73-075
Pressley, T. A.	EPA-670/2-73-058
Preston, E. H.	EPA-600/5-74-002
Prevost, R. J.	EPA-600/1-76-019
Pringer, C. J.	EPA-670/2-74-092
Proctor, D. E.	EPA-660/2-74-030
Propheter, O. W.	EPA-660/2-74-045
Prus-Chacinski, T. M.	EPA-600/2-75-062
Purdom, P. W.	EPA-670/2-73-057
Putmann, A. A.	EPA-650/2-74-011
Putnam, A. A.	EPA-600/2-75-073
Putnam, A. A.	EPA-600/2-75-067
Putnam, A. A.	EPA-600/2-76-076
Pyatt, E. E.	EPA-600/5-74-013
Quetier, J.	EPA-600/2-75-025
Rabe, F. T.	EPA-600/5-75-002
Raben, I	EPA-650/2-73-013
Rabes, F. T.	EPA-600/5-75-013
Ragland, W. L.	EPA-600/1-76-003
Rains, B. A.	EPA-670/2-73-098
Rainwater, F. H.	EPA-660/2-73-016
Ralls, J. W.	EPA-660/2-74-091
Ramanathan, R.	EPA-600/5-75-010
Ramm, W.	EPA-600/5-75-010
Ramos, E.	EPA-660/2-74-074
Ramsey, R. H.	EPA-660/2-75-003
Ramsey, R. J.	EPA-660/2-74-024
Randall, R. H.	EPA-600/3-76-027
Rao, A. K.	EPA-600/2-75-020
Raphael, C. N.	EPA-660/3-74-029
Rapp, J. R.	EPA-670/2-74-009
Rappaport, A.	EPA-600/5-73-012b
Ratsch, H. C.	EPA-660/3-74-018
Ratsch, H. C.	EPA-660/3-74-012
Rawlings, G. D.	EPA-600/2-76-032c
Rayyan, Fawzi	EPA-660/2-73-025a
Reale, R.	EPA-600/2-75-037
Rechnitz, G. A.	EPA-660/2-74-079
Reding, J. T.	EPA-650/2-75-032d
Rees, S. M.	EPA-600/2-75-072
Reeves, W. R.	EPA-670/2-75-034
Refrancois, P. A.	EPA-650/2-74-012
Register, J. W.	EPA-650/1-74-003
Reh, C. W.	EPA-670/2-75-035
Rei, M. T.	EPA-600/2-76-055
Reichert, P. A.	EPA-600/5-73-015
Reid, G. W.	EPA-660/2-74-037
Reimer, A. A.	EPA-600/3-76-028
Reimers, R.	EPA-600/5-74-016
Reiner, R.	EPA-650/2-73-009
Reiners, R. S.	EPA-600/5-74-005
Remus, G. A.	EPA-670/2-74-043
Reuss, J. O.	EPA-660/3-75-032
Reyna, R.	EPA-600/5-73-012b
Reynolds, S. L.	EPA-600/2-76-093b
Reznik, R. B.	EPA-600/2-76-032c
Reznik, R. B.	EPA-600/2-76-032b
Rhee, S. S.	EPA-670/2-74-019
Rhodes, R. C.	EPA-600/4-76-006
Ribas, R. S.	EPA-600/2-76-045
Ricciardella, K. A.	EPA-670/2-74-001
Rich, S. R.	EPA-670/2-75-004
Richardson, D. L.	EPA-670/2-74-045
Richardson, D. L.	EPA-670/2-74-033
Richardson, S. L.	EPA-670/2-75-021
Richardson, W. H.	EPA-670/2-75-019
Riley Jr., B. T.	EPA-600/2-75-044
Riley, R. G.	EPA-660/2-74-081
Ringe, R. R.	EPA-660/3-73-017
Rinker, T. L.	EPA-600/2-75-055
Ripley, T. C.	EPA-600/2-76-065
Riscan, N. J.	EPA-660/2-75-021
Roan, S. G.	EPA-670/2-73-075
Robbins, G. M.	EPA-600/5-74-024
Robbins, J. H.	EPA-670/2-74-056
Robert, K H.	EPA-600/1-75-004
Roberts, D. L.	EPA-650/2-74-046a
Robertson, A.	EPA-660/3-74-006
Robertson, J.	EPA-660/2-74-077
Robins, J. D.	EPA-670/2-73-054
Robinson, D.	EPA-670/2-74-044
Robinson, G. M. L.	EPA-670/2-74-073
Robinson, J. W.	EPA-650/2-73-011
Robinson, S. J.	EPA-600/5-75-001
Robson, F. L.	EPA-600/2-75-078
Roden III, J. J.	EPA-670/2-74-030
Rodriguez, J.	EPA-660/2-74-074
Roeber, J. A.	EPA-600/2-75-060
Roesler, J. F.	EPA-670/2-73-104
Roesner, L. A.	EPA-600/2-76-058
Roessler, M.	EPA-660/3-74-014
Roessler, W. U.	EPA-650/2-73-014
Rogers, C.	EPA-670/2-75-005
Rogers, C. J.	EPA-670/2-74-088
Rogers, H. H.	EPA-600/2-76-087
Rogers, R. D.	EPA-600/3-75-014
Rohovec, J. S.	EPA-600/3-76-021
Romkens, M. J. M.	EPA-660/2-74-043
Rosebrook, D. D.	EPA-600/2-76-012b
Rosebrook, D. D.	EPA-600/2-76-012a
Rosenberg, H. S.	EPA-600/2-76-015
Rosenblatt, T. M.	EPA-670/2-74-004
Rosenblum, H.	EPA-600/3-75-003b
Rosenblum, H.	EPA-600/3-75-003a
Ross, L. E.	EPA-600/3-76-010
Ross, L. W.	EPA-670/2-73-080
Rossi, R. C.	EPA-600/2-76-024
Rossi, R. C.	EPA-600/2-76-070
Rossoff, J.	EPA-600/2-76-024
Rossoff, J.	EPA-600/2-76-070

PERSONAL AUTHOR INDEX

Roth, C.	EPA-660/2–74–043
Rothwell, D. F.	EPA-670/2–73–063
Rovesti, W. C.	EPA-650/2–73–041
Rowe, M. L.	EPA-660/2–75–003
Rowe, M. L.	EPA-660/3–75–030
Royal, T. M.	EPA-650/2–74–019
Rozelle, R.	EPA-670/2–75–006
Rozielle, L. T.	EPA-660/2–73–033
Rubin, C.	EPA-600/5–73–016
Rudnick, S. N.	EPA-600/2–76–020
Ruegg, R. T.	EPA-600/5–74–031
Ruich, D. A.	EPA-600/2–73–004
Ruiz, Jr., L. P.	EPA-670/2–75–032
Russell, L.	EPA-660/3–75–036
Ruth, L. A.	EPA-650/2–74–001
Ryans, B.	EPA-650/4–74–002
Ryans, B.	EPA-650/4–75–019
Ryans, B.	EPA-650/4–75–021
Ryans, B.	EPA-650/4–75–022
Ryans, B.	EPA-650/4–75–023
Ryland, D. W.	EPA-670/4–73–002
Sack, W. A.	EPA-670/2–73–022
Sadler, W. W.	EPA-670/2–75–035
Sahagian, J.	EPA-600/5–74–032
Saigh, P. A.	EPA-670/2–75–007
Saila, S. B.	EPA-600/3–75–001
Saloman, L. L.	EPA-680/4–75–003
Salvin, V. S.	EPA-650/3–74–008
Sanborn, H.	EPA-660/3–73–005
Sanborn, J. R.	EPA-660/3–74–025
Sanders, J. E.	EPA-600/3–76–021
Sanders, R. G.	EPA-670/2–75–004
Sandoski, D. A.	EPA-600/2–74–007
Sandoski, D. A.	EPA-600/2–74–005
Sanville, W. D.	EPA-660/3–74–032
Sanville, W. D.	EPA-660/3–74–015
Sargent, D. H.	EPA-600/2–73–004
Sarofim, A. F.	EPA-670/2–73–089A
Sarofim, A. F.	EPA-670/2–73–089B
Satterfield, C. N.	EPA-600/2–75–063
Savino, M.	EPA-600/5–73–012e
Saxton, J. C.	EPA-670/2–74–078
Sayles, J. H.	EPA-660/2–75–016
Schacht, R. A.	EPA-660/3–74–002
Schaedel, A. L.	EPA-660/3–75–004
Schafer, P. H.	EPA-600/5–75–001
Scherifig, J.	EPA-660/3–73–015
Schmalensee, R.	EPA-600/5–75–010
Schmer, F. A.	EPA-670/4–73–002
Schmid, L. A.	EPA-660/2–75–013
Schmidt, C. J.	EPA-660/2–74–075
Schmidt, C. J.	EPA-670/2–75–038
Schmidt, F. A.	EPA-670/2–73–091
Schmidt, R. A.	EPA-600/2–74–002
Schneider, G. R.	EPA-600/2–76–039
Schoenberger, R. J.	EPA-670/2–73–057
Schoettger, R. A.	EPA-660/3–75–011
Schoor, W. P.	EPA-660/3–74–013
Schoor, W. P.	EPA-660/3–74–024
Schrag, M. P.	EPA-600/2–75–020
Schrag, M. P.	EPA-600/2–76–041
Schreiber, R. J.	EPA-600/2–75–046
Schrieber, R. J.	EPA-600/2–76–037
Schroeder, E. D.	EPA-660/2–75–002
Schultz, G. R.	EPA-670/9–73–056
Schultz, J. L.	EPA-600/2–76–075
Schultz, W.	EPA-670/2–75–045
Schuring, D. J.	EPA-600/2–76–028
Schwartz, A. M.	EPA-600/2–74–003
Schwartz, W.	EPA-650/3–74–011
Schweikhardt, R. G.	EPA-670/2–74–024B
Schweikhardt, R. G.	EPA-670/2–74–024A
Scott, P.	EPA-600/5–73–012d
Scott, T. W.	EPA-660/2–74–063
Scotton, J. W.	EPA-600/4–75–001
Seale, L. M.	EPA-600/2–76–046a
Seals, R. G.	EPA-600/4–75–015
Searl, T. D.	EPA-650/2–74–0091
Sedita, S. J.	EPA-600/2–75–061
Seidman, H.	EPA-660/2–73–003
Seitz, W. R.	EPA-660/2–73–009
Seitz, W. R.	EPA-660/2–73–007
Selker, A. P.	EPA-650/2–73–005
Selker, A. P.	EPA-650/2–73–005a
Selker, A. P.	EPA-650/2–73–005b
Selleck, R. E.	EPA-660/3–74–016
Sem, G. J.	EPA-650/2–73–022
Semrau, K. T.	EPA-600/2–76–084
Seng, W. C	EPA-660/2–73–015
Senturia, S. D.	EPA-670/2–75–040
Sephton, H. H.	EPA-600/2–76–017
Serne, J. C.	EPA-600/2–76–036a
Serne, J. C.	EPA-600/2–76–036j
Serne, J. C.	EPA-600/2–76–036i
Serne, J. C.	EPA-600/2–76–036f
Serne, J. C.	EPA-600/2–76–036e
Serne, J. C.	EPA-600/2–76–036d
Serne, J. C.	EPA-600/2–76–036b
Serne, J. C.	EPA-600/2–76–036g
Serne, J. C.	EPA-600/2–76–036k
Serne, J. C.	EPA-600/2–76–036h
Serne, J.C.	EPA-600/2–76–036c
Sewell, R. J.	EPA-670/2–75–060
Seyler, J. K.	EPA-660/2–73–032
Shafizadeh, F.	EPA-670/2–74–015
Shaheen, D. G.	EPA-600/2–75–004
Shannon, L. J.	EPA-600/2–75–020
Shannon, L. J.	EPA-600/2–76–041
Shannon, L. J.	EPA-600/2–76–040
Shannon, L. J.	EPA-600/2–76–066
Shannon, L. J.	EPA-600/2–76–067
Shannon, L. J.	EPA-600/2–76–001
Shannon, L. J.	EPA-600/5–74–007
Shareskin, M.	EPA-600/5–74–033
Sharkey, A. G.	EPA-600/2–76–075
Sharp, J. V. A.	EPA-600/2–76–005b
Sharp, J. V. A.	EPA-600/2–76–005a
Sharp, M. C.	EPA-600/4–76–015
Sharpin, R. E.	EPA-660/2–73–036
Shaw, H.	EPA-650/2–74–001
Shaw, H.	EPA-650/2–74–009a
Shea, T.	EPA-660/2–74–074
Sheehy, J. W.	EPA-600/2–76–082
Sheikh, H.	EPA-670/2–75–017
Sheikh, H.	EPA-670/2–75–022
Shelley, P. E.	EPA-600/2–75–027
Shelley, P. E.	EPA-600/2–75–065
Shelley, P. E.	EPA-600/2–76–006
Shepherd, B. P.	EPA-650/2–75–032d
Sherma, J.	EPA-600/1–76–017
Sherrill, J. D.	EPA-670/2–75–046
Shiek, L. J.	EPA-600/4–75–005a
Shimabuku, R.	EPA-660/3–75–036
Shimizu, A. B.	EPA-600/2–75–046
Shirazi, M. A.	EPA-660/2–73–016
Shoffstall, D. R.	EPA-650/2–73–033a

PERSONAL AUTHOR INDEX

Shoffstall, D. R.	EPA-650/2-73-033b
Shofner, F. M.	EPA-660/2-73-011
Sholtes, R. S.	EPA-650/2-73-007
Shore, D. E.	EPA-600/2-76-086a
Shubinski, R. P.	EPA-600/2-76-058
Shuckrow, A. J.	EPA-670/2-73-078
Shuckrow, A. J.	EPA-670/2-75-012
Shuman, M. D.	EPA-600/2-76-039
Shuster, W. W.	EPA-670/2-74-063
Sibbett, D. J.	EPA-650/2-73-052
Siderewicz, W.	EPA-660/2-75-019
Siebert, P. C.	EPA-600/2-76-065
Siedle, A. R.	EPA-600/2-76-007
Silverstein, R. M.	EPA-660/2-74-081
Simon, G. R.	EPA-600/2-75-010
Simpson, J. D.	EPA-600/5-75-007
Simpson, J. P.	EPA-600/2-75-006
Siner, R. D.	EPA-670/5-74-001
Singley, J. E.	EPA-660/2-74-021
Sisson, R. L.	EPA-600/5-74-008
Sisson, W. G.	EPA-600/2-76-025
Sitek, G.	EPA-660/2-74-073
Skogerboe, G.	EPA-660/2-74-084
Skogerboe, G. V.	EPA-600/2-76-019
Skogerboe, G. V.	EPA-660/2-74-052
Skogerboe, G. V.	EPA-660/2-74-049
Skogerboe, G. V.	EPA-670/2-75-048
Skogerboe, R. K.	EPA-670/2-75-048
Skrentner, R. G.	EPA-670/2-75-020
Skriba, M. C.	EPA-670/2-74-017
Slater, S.	EPA-600/2-76-046b
Slegel, D. L.	EPA-600/3-76-026
Sliger, A. G.	EPA-650/2-74-012
Smallwood, C.	EPA-660/2-73-021
Smallwood, D.	EPA-600/5-75-010
Smallwood, H.	EPA-600/5-73-003
Smith Jr., L. L.	EPA-660/3-75-017
Smith, C. L.	EPA-670/2-73-099
Smith, C. N.	EPA-660/2-74-017
Smith, D. V.	EPA-600/5-75-001
Smith, F.	EPA-650/4-74-005a
Smith, F. A.	EPA-660/3-73-007
Smith, G. E.	EPA-660/2-74-068
Smith, G. F.	EPA-670/2-75-017
Smith, J.	EPA-660/2-74-037
Smith, J. D.	EPA-670/2-73-076
Smith, J. E.	EPA-670/2-75-021
Smith, J. K.	EPA-670/1-75-001
Smith, J. M.	EPA-600/2-76-018
Smith, J. S.	EPA-650/5-73-002
Smith, K. D.	EPA-650/2-74-007
Smith, R.	EPA-670/2-73-044
Smith, R.	EPA-670/2-73-045
Smith, R.	EPA-670/2-73-046
Smith, R.	EPA-670/2-74-069
Smith, R. E.	EPA-660/2-74-064
Smith, R. G.	EPA-670/2-75-039
Smith, R. J.	EPA-660/2-74-009
Smith, R. M.	EPA-670/2-74-070
Smith, S. W.	EPA-600/2-76-019
Smith, W.	EPA-600/2-75-052
Smith, W. B.	EPA-650/2-74-028
Smith, W. B.	EPA-650/2-74-102a
Smith, W. G.	EPA-670/2-74-040
Smith, W. L.	EPA-660/3-73-001
Smithson Jr., G. R.	EPA-600/2-76-056
Smithson Jr., G. R.	EPA-650/2-75-038
Smithson Jr., G. R.	EPA-670/2-75-018
Snedden, R.	EPA-650/2-74-038
Snelling, R. N.	EPA-600/4-75-015
Snow, R. H.	EPA-600/2-76-009
Snowman, L. R.	EPA-650/2-74-046a
Snowman, L. R.	EPA-650/2-74-046b
Snyder, A. J.	EPA-660/2-74-039
Snyder, W. H.	EPA-600/4-76-001
Sobek, A.	EPA-670/2-74-070
Solls Jr., F. W.	EPA-670/2-73-029
Solomon, I. J.	EPA-600/3-76-012
Sommer, J.	EPA-600/5-74-027
Sonnen, M. B.	EPA-600/2-76-058
Sopper, W. E.	EPA-660/2-74-003
Sopper, W. E.	EPA-660/2-74-016
Speaker, D. M.	EPA-600/5-74-015
Spealman, M. L.	EPA-600/2-75-038
Speece, R. E.	EPA-660/2-73-025b
Speece, R. E.	EPA-660/2-73-025a
Spence, J. W.	EPA-600/3-76-015
Sperling, R. B.	EPA-600/2-75-077
Spewak, P.	EPA-600/2-75-007
Spicer, C. W.	EPA-600/3-76-030
Sproul, O.	EPA-660/2-74-088
Spruill, E. L.	EPA-660/2-74-008
Squire, G. R.	EPA-660/2-74-071
Staebler Jr., C. J.	EPA-660/2-73-024
Stalberg, S.	EPA-600/2-75-021a
Stalnaker, C. B.	EPA-660/3-73-019
Stamberg, J. B.	EPA-670/2-73-037
Stamberg, J. B.	EPA-670/2-73-033
Stamberg, J. B.	EPA-670/2-75-051
Stamberg, J. B.	EPA-670/2-75-052
Stanbery, J. B.	EPA-670/2-73-073
Stanland, R.	EPA-600/5-73-015
Starkey, R. J.	EPA-660/3-74-022
Statnick, R. M.	EPA-650/2-74-050
Stay, F. S.	EPA-660/3-74-032
Stefan, H.	EPA-660/3-75-014
Stein, J. L.	EPA-660/2-74-059
Stenhser, A. G.	EPA-660/2-73-010
Stenquist, R. J.	EPA-600/2-75-038
Sternling, C. V.	EPA-650/2-74-017
Stevens, B. H.	EPA-670/5-74-006
Stevens, D. H.	EPA-670/2-73-060
Stevens, R. K.	EPA-600/3-76-035
Stevenson, M. K.	EPA-670/2-73-010
Stevenson, W. S.	EPA-660/3-74-004a
Steward, F. A.	EPA-670/2-75-015
Stewart, R. D.	EPA-650/1-73-004
Stewart, S. R.	EPA-670/2-73-086
Stierli, H.	EPA-670/2-73-001
Stinnett, S.	EPA-660/3-75-030
Stoddard, C. K.	EPA-670/2-73-092
Stoermer, E. F.	EPA-660/3-75-004
Stoevener, H. H.	EPA-600/5-74-017
Stone, H. E.	EPA-660/2-74-092
Stone, R.	EPA-600/5-73-003
Stone, R.	EPA-670/2-74-095a
Stone, R.	EPA-670/2-74-095b
Stone, R. B.	EPA-600/2-75-040
Streebin, L. E.	EPA-660/2-74-037
Streiff, M. L.	EPA-650/2-73-026
Streiter, S.	EPA-600/5-75-007
Stricksel, P. R.	EPA-600/3-76-018
Strom, A.	EPA-670/2-75-045
Stucky, D. J.	EPA-670/2-74-050
Sturrock, T.	EPA-660/3-74-007
Sullivan, R. H.	EPA-600/2-75-062

PERSONAL AUTHOR INDEX

Sullivan, R. H.	EPA-670/2-74-039
Sullivan, R. H.	EPA-670/2-74-026
Sumark, L.	EPA-600/5-73-016
Summerfelt, R. C.	EPA-660/2-74-046
Summers, C. H.	EPA-670/2-74-086
Surprenant, N.	EPA-600/2-76-046a
Surprenant, N.	EPA-600/2-76-046b
Surprenant, N.	EPA-600/5-74-032
Susa, T.	EPA-600/2-76-046b
Sussman, M.	EPA-600/2-76-046b
Sutton, J. W.	EPA-660/2-73-018
Sutton, W. W.	EPA-600/3-76-025
Sutton, W. W.	EPA-680/4-75-003
Swaezy, R. M.	EPA-660/2-74-090
Swain, H.	EPA-670/2-75-006
Swanson, J. W.	EPA-660/2-74-029
Swanson, N. P.	EPA-660/2-75-015
Sweeny, K. H.	EPA-660/2-74-036
Swink, D.	EPA-600/9-75-002
Sybert, L.	EPA-650/2-73-013
Sybert, L.	EPA-650/2-74-010
Sylvester, J. R.	EPA-660/3-75-015
Szabo, A. J.	EPA-660/2-74-061
Tafuri, A. N.	EPA-600/2-76-095
Takenaka, H. H.	EPA-600/2-75-047
Talley, R. J.	EPA-670/5-74-005
Tam, S. S.	EPA-650/2-75-038
Tang, J. Y.	EPA-650/3-73-002
Taras, M. J.	EPA-660/2-73-020
Tarazi, D. S.	EPA-660/3-74-026
Tardiff, R. G.	EPA-670/9-75-008
Tarzynski, J.	EPA-670/2-75-002
Tate, D. C.	EPA-660/2-73-019
Tatom, J. W.	EPA-600/2-76-090
Taub, F. B.	EPA-660/3-73-008
Taylor, C. E.	EPA-660/2-74-001
Taylor, J.	EPA-660/2-74-084
Taylor, J. H.	EPA-660/2-74-052
Taylor, R. T.	EPA-600/1-76-016
Taylor, W. J.	EPA-660/2-74-001
Teas, H. J.	EPA-600/3-76-004
Teske, M.	EPA-600/4-75-016a
Teske, M.	EPA-600/4-75-016b
Tessier, T. L.	EPA-660/2-74-056
Teuschler, J. M.	EPA-670/4-75-002
Thackston, E. L.	EPA-660/3-75-002
Thaxton, E. L.	EPA-660/2-74-085
Thibodeaux, L. J.	EPA-660/2-74-044
Thomann, R. V.	EPA-660/3-73-009
Thomann, R. V.	EPA-660/3-75-005
Thomas Jr., J.	EPA-650/2-73-044
Thomas, C. R.	EPA-670/2-74-073
Thomas, J. L.	EPA-660/2-74-014
Thomas, J. W.	EPA-660/2-74-057
Thomas, R. E.	EPA-600/4-76-014
Thomas, R. E.	EPA-650/4-74-022
Thomas, R. E.	EPA-650/4-74-021
Thomas, R. E.	EPA-660/2-74-062
Thomas, R. E.	EPA-660/2-74-087
Thomas, T. J.	EPA-600/2-75-073
Thomas, T. J.	EPA-600/2-76-056
Thompson, C. G.	EPA-660/2-75-006
Thompson, R. S.	EPA-650/4-74-008
Thompson, V. L.	EPA-600/4-75-010
Thorhaug, A.	EPA-660/3-74-003
Thornton, W. E.	EPA-660/2-73-032
Thorpe, R.	EPA-600/5-76-002
Thruston Jr., A. D.	EPA-600/4-76-010
Thurnau, R. C.	EPA-670/2-75-025
Thurow, C.	EPA-600/5-75-005
Tibbs, J. F.	EPA-660/3-74-023
Tichenor, B. A.	EPA-660/2-73-016
Tifft, Jr., E. C.	EPA-670/2-75-021
Tihansky, D. P.	EPA-600/5-73-001
Tillery, J. B.	EPA-600/1-76-019
Tillery, J. B.	EPA-650/1-74-003
Tilton, B.	EPA-650/2-73-053
Tilton, B.	EPA-650/2-74-015
Tilton, B.	EPA-650/4-75-025
Timmons, R. F.	EPA-600/2-76-047
Timpe, W. G.	EPA-660/2-75-004
Tinsley, C. H.	EPA-660/3-74-004a
Todd, D. K.	EPA-600/4-74-001
Tohata, H.	EPA-600/2-76-013b
Tomlinson, S. V.	EPA-600/2-75-006
Tommerdahl, J. B.	EPA-650/2-74-019
Toner, W.	EPA-600/5-75-005
Torpey, W. N.	EPA-670/2-73-027
Torstrick, R. L.	EPA-600/2-75-006
Toussaint, G. R.	EPA-660/2-74-077
Trentacoste, N. P.	EPA-670/2-75-066
Trihey, P. T.	EPA-660/2-75-026
Tripler Jr., A. B.	EPA-670/2-75-018
Troxler, R. W.	EPA-660/3-75-002
Truchan, J. G.	EPA-600/3-76-009
Truett, B.	EPA-600/2-75-070
Truett, D. B.	EPA-600/2-75-007
Truett, J. B.	EPA-600/2-76-085
Truett, J. B.	EPA-650/2-74-030
Trzyna, T. C.	EPA-600/5-74-023
Trzyna, T. C.	EPA-600/5-74-006
Tsai, C.	EPA-660/3-75-038
Tsang, P.	EPA-650/2-74-006
Tucker, U. C.	EPA-650/2-73-027
Tulumello, A.	EPA-670/2-74-087
Tulumello, A.	EPA-670/2-75-067
Turk, A.	EPA-600/2-76-021
Turner III, J. F.	EPA-600/2-76-004
Turner, D. S.	EPA-660/3-74-029
Turner, J. H.	EPA-650/2-73-012
Tuwiner, S. B.	EPA-660/2-74-035
Uchida, S.	EPA-650/2-73-003
Ulmer, N. S.	EPA-670/2-74-007
Ung, R. F.	EPA-670/2-74-018
Unger, S. G.	EPA-600/5-73-008a
Unger, S. G.	EPA-600/5-74-028
Upham, J. B.	EPA-600/3-76-015
Upham, J. B.	EPA-650/3-74-008
Ure, J. E.	EPA-600/2-75-062
Usinowicz, P. J.	EPA-670/2-74-012
Uttormark, P. D.	EPA-660/3-74-020
Uttormark, P. D.	EPA-660/3-73-023
Uttormark, P. D.	EPA-660/3-75-033
Jzuner, A. S.	EPA-600/2-76-050
Valentine, J. R.	EPA-650/2-73-032
Vallee, R. P.	EPA-670/2-74-076b
Vallee, R. P.	EPA-670/2-74-076a
Van der Leeden, F.	EPA-660/3-75-018
Van Beek, J. L.	EPA-600/5-75-006
Van Dam, D.	EPA-670/2-73-103
Van Der Leeden, F.	EPA-600/4-73-001a
Van Hook, R. I.	EPA-600/1-76-006
Van Winkle, M.	EPA-600/5-73-012c
Vandergrift, A. E.	EPA-670/2-74-048
Varga Jr., J.	EPA-600/2-76-054
Varga Jr., J.	EPA-600/2-76-002

PERSONAL AUTHOR INDEX

Vasan, K. S.	EPA-670/5-74-008
Vaughan, D. A.	EPA-670/2-73-032
Vaughan, D. A.	EPA-670/2-75-058
Veith, G. D.	EPA-660/3-75-022
Vennes, J.	EPA-660/2-74-088
Vick, N. J.	EPA-670/5-74-001
Viets, F. G.	EPA-660/2-75-015
Viskanta, R.	EPA-600/4-76-002
Vivian, J. E.	EPA-650/2-73-047
Vlastelicia, J.	EPA-660/3-73-014
Vogh, R. P.	EPA-660/2-74-055
Voiland, E. E.	EPA-600/3-76-010
Waddell, T. E.	EPA-600/5-74-012
Wade, R. C.	EPA-650/2-73-052
Waffinden, G. J.	EPA-600/2-76-062
Wagman, J.	EPA-600/2-76-033
Wagner, J. J.	EPA-600/5-75-001
Wagoner, D. E.	EPA-650/4-74-005a
Wahl, J. A.	EPA-650/2-74-008a
Wakeland, J. R.	EPA-600/5-73-012c
Waldron, A. C.	EPA-660/2-74-032
Walker, J. M.	EPA-600/2-75-034
Walker, W. R.	EPA-600/2-76-019
Walker, W. R.	EPA-660/2-74-052
Walker, W. R.	EPA-660/2-74-049
Walker, W. R.	EPA-660/2-74-084
Wall, J. P.	EPA-660/3-75-033
Wallace, J. B.	EPA-660/3-73-016
Wallbridge, C. T.	EPA-600/3-75-012
Waller, R.	EPA-670/2-74-097
Wallingford, G. W.	EPA-660/2-75-010
Wallman, H.	EPA-670/2-74-071
Wallon, D. V.	EPA-600/2-75-074
Walmsley, R.	EPA-600/2-76-061a
Waltz, F. A.	EPA-670/4-73-002
Wang, R.	EPA-600/2-76-035
Wang, S. C.	EPA-650/2-74-010
Wapner, M.	EPA-600/3-75-008
Ward, G. F.	EPA-600/3-76-018
Warg, J. B.	EPA-670/2-75-047
Warner, B. E.	EPA-600/2-75-028
Warner, D. L.	EPA-680/4-74-003
Warner, D. L.	EPA-680/4-75-008
Warner, M.	EPA-600/5-74-002
Warner, M.	EPA-600/5-74-016
Warner, W. K.	EPA-600/5-74-011
Wasser, J. H.	EPA-650/2-74-003
Wasser, J. U.	EPA-650/2-73-029
Wathne, M.	EPA-670/2-74-035a
Watkins, S. W.	EPA-660/2-73-028
Watson Jr., W. D.	EPA-600/5-73-014
Watt, T. R.	EPA-670/2-75-020
Weant, G. E.	EPA-600/2-76-008
Webb, R. G.	EPA-660/4-75-003
Weber Jr., W. J.	EPA-670/2-75-061
Weber Jr., W. J.	EPA-670/2-74-047
Weber Jr., W. J.	EPA-670/2-74-012
Weber, A. H.	EPA-600/4-75-004
Weber, C. I.	EPA-670/4-73-001
Weet, J. H.	EPA-670/2-75-015
Weinberg, E. K.	EPA-650/2-73-014
Weinburg, M. S.	EPA-670/2-73-062
Weinstein, M. J.	EPA-670/2-74-052
Weinstein, S. M.	EPA-600/2-76-069
Weisback, R. A.	EPA-600/2-76-045
Weisberg, H.	EPA-670/2-74-044
Weisenberg, I. J.	EPA-600/2-76-036i
Weisenberg, I. J.	EPA-600/2-76-036j
Weisenberg, I. J.	EPA-600/2-76-036f
Weisenberg, I. J.	EPA-600/2-76-036g
Weisenberg, I. J.	EPA-600/2-76-036k
Weisenberg, I. J.	EPA-600/2-76-036h
Weisenberg, I. J.	EPA-600/2-76-036c
Weisenberg, I. J.	EPA-600/2-76-036a
Weisenberg, I. J.	EPA-600/2-76-036d
Weisenberg, I. J.	EPA-600/2-76-036b
Weisenberg, I. J.	EPA-600/2-76-036e
Weiss, A. H.	EPA-670/2-75-031
Weiss, B.	EPA-670/2-73-049
Welborn, H. L.	EPA-670/2-74-075
Wells, R. M.	EPA-600/2-76-049b
Wells, R. M.	EPA-600/2-76-049a
Wells, R. M.	EPA-600/2-76-092
Welsh, F. L.	EPA-670/2-74-050
Wen, C. Y.	EPA-600/2-75-023
Wen, C. Y.	EPA-650/2-73-003
Wendt, J. O.	EPA-650/2-74-017
Wendt, J. O. L.	EPA-600/2-75-075
Werner, A. S.	EPA-600/2-76-069
Wesolowski, J. J.	EPA-600/2-76-059
Westphal, J. A.	EPA-600/2-76-005b
Westphal, J. A.	EPA-600/2-76-005a
Wezernak, C. T.	EPA-660/3-74-028
Wheeler, R. J.	EPA-650/2-74-068
Whitacre, G. R.	EPA-650/2-74-011
White, C.	EPA-600/2-76-075
White, I. L.	EPA-600/5-76-001
White, J. E.	EPA-660/2-74-027
White, J. H.	EPA-600/2-76-034
White, J. T.	EPA-660/2-75-001
White, R. K.	EPA-600/2-75-009
White, U. M.	EPA-650/2-73-014
White, W.	EPA-650/2-73-017
Whiting, D.	EPA-660/2-75-018
Whitman, J.	EPA-600/4-75-001
Whitmore, F. J.	EPA-650/4-73-003
Wickersham, K.	EPA-600/5-75-008
Wilbur, D. J.	EPA-600/3-76-008
Wilcox, E. A.	EPA-670/2-73-042
Wilder, M. J.	EPA-600/3-76-027
Wiley, A. J.	EPA-660/2-73-030
Wilkins, G.	EPA-600/2-76-051g
Wilkins, G. C.	EPA-600/2-75-042
Will, L. A.	EPA-660/2-75-012
Williams, D.	EPA-650/2-73-050
Williams, E. R.	EPA-600/5-73-013
Williams, R.	EPA-600/2-75-012
Williamson, D. G.	EPA-600/3-76-024
Wilmoth, R. C.	EPA-670/2-73-100
Wilmoth, R. C.	EPA-670/2-74-051
Wilson, D. F.	EPA-660/2-75-028
Wilson, D. G.	EPA-670/2-75-040
Wilson, J. R.	EPA-660/2-75-028
Wilson, K. D.	EPA-670/2-75-063
Wilson, W. E.	EPA-600/3-76-035
Windom, H. J.	EPA-600/3-76-023
Winfield, R. P.	EPA-660/3-75-005
Winiarski, L.	EPA-660/2-73-001
Winkler, P. F.	EPA-670/2-74-031
Winkler, W.	EPA-600/5-75-015
Wirtanen, W. T.	EPA-660/2-73-036
Wise, R. H.	EPA-670/2-74-034
Wise, R. H.	EPA-670/2-74-046
Wixon, B. G.	EPA-670/2-75-053
Wixson, B. G.	EPA-670/2-73-038
Wolcott, A. R.	EPA-660/2-74-057

PERSONAL AUTHOR INDEX

Wolfe, N. L.	EPA-600/3-76-001
Wolk, R. H.	EPA-650/2-73-041
Wolk, R. H.	EPA-670/2-73-066
Wood, A. L.	EPA-660/2-75-009
Woodward, J. B.	EPA-670/2-74-054
Wren, E. J.	EPA-670/2-73-021
Wymore, A. H.	EPA-660/2-74-027
Yaffe, H. J.	EPA-670/5-74-009
Yanagida, N.	EPA-660/2-74-053
Yang, P. Y.	EPA-660/2-74-063
Yin, S. C.	EPA-660/2-74-046
Young, C.	EPA-600/2-76-046b
Young, C.	EPA-600/2-76-069
Young, J. F.	EPA-600/2-75-006
Young, J. R.	EPA-600/3-76-028
Youngblood, S. B.	EPA-600/2-75-046
Yousef, Y. A.	EPA-670/2-74-072
Yung, S.	EPA-650/2-74-119b
Zachar, F. R.	EPA-670/2-74-002
Zado, F. K.	EPA-650/2-75-057i
Zado, F. K.	EPA-650/2-75-057e
Zado, F. K.	EPA-650/2-75-057h
Zado, F. K.	EPA-650/2-75-057k
Zadick, F. J.	EPA-600/2-75-038
Zakely, B. J.	EPA-660/2-74-049
Zoll, R. R.	EPA-660/2-75-019
Zandi, I.	EPA-670/2-73-072
Zaval, F. J.	EPA-670/2-74-003
Zegel, W. C.	EPA-600/3-76-016
Zeitoun, M. A.	EPA-660/2-75-021
Zepp, R. G.	EPA-600/3-76-001
Ziegler, R. C.	EPA-600/2-76-029
Ziegler, R. C.	EPA-600/2-76-028
Ziegler, R. C.	EPA-670/2-75-042
Zimmerman, J. R.	EPA-650/4-74-008
Zinn, J. L.	EPA-600/3-76-021
Zippler, K. L.	EPA-670/2-73-071
Zoller, M. A.	EPA-600/5-73-012c

GRANT, CONTRACT, INTERAGENCY AGREEMENT NUMBER INDEX

CONTRACTS

PROJECT NO.	REPORT NO.
CPA 70-40	650/4-75-016
CPA-70-114	600/2-75-057
CPE-70-129	670/2-73-010
DACW 37-74-C-00	670/2-75-050a
DACW 37-74-C-00	670/2-75-050b
DACW 37-74-C-00	670/2-75-050c
DACW 37-74-C-00	670/2-75-050d
DACW 37-74-C-00	670/2-75-050e
DACW 37-74-C-00	670/2-75-050f
DACW 37-74-C-00	670/2-75-050g
EHS 70-108	670/2-74-092
GS-03S-38351	600/5-73-013
PH 22-68-67	650/2-75-047
10-12-0007	650/1-74-005
10-12-0019	650/2-74-001
10-12-0023	650/2-73-022
10-12-0040	650/4-74-027
10-12-0049	650/4-73-002
10-12-0061	650/2-74-077
10-12-0088	650/2-74-012
10-12-0134	650/1-74-006
10-12-0143	650/2-74-024
10-12-0162	650/2-74-022
10-12-0166	650/2-74-132
12-12-0097	650/1-74-001
12-12-0139	650/2-74-053
14-12-0024	660/2-74-050
14-12-0024	670/2-74-050
14-12-0168	670/2-74-048
14-12-0179	670/2-73-076
14-12-0494	670/2-75-002
14-12-0505	670/2-73-047a
14-12-0813	670/2-73-062
14-12-0818	660/2-73-033
14-12-0818	670/2-73-033
14-12-0818	670/2-73-037
14-12-0818	670/2-73-040
14-12-0818	670/2-73-058
14-12-0818	670/2-73-070
14-12-0818	670/2-73-073
14-12-0818	670/2-73-075
14-12-0820	670/2-74-025
14-12-0824	670/2-74-074
14-12-0831	670/2-75-009
14-12-0833	660/2-74-076
14-12-0846	670/2-73-042
14-12-0909	600/2-73-002

CONTRACTS

PROJECT NO.	REPORT NO.
14-12-0922	660/2-74-036
14-12-150	600/2-75-047
14-12-874	600/3-76-028
22-68-0002	650/3-74-008
22-69-0064	650/3-73-001
22-69-108	650/4-75-002
24-12-0004	650/2-74-084
24-12-0015	650/2-73-049
24-12-0025	650/2-73-024
24-12-0027	650/2-73-023
24-12-0045	650/2-74-017
35-12-0067	650/2-73-013
35-12-0067	650/2-74-010
43-12-0142	650/1-74-007
5-03-3516	600/2-75-044
68-01-0040	670/2-75-028
68-01-0041	670/2-74-071
68-01-0042	600/2-75-061
68-01-0067	670/2-73-084
68-01-0068	670/2-73-068
68-01-0076	660/3-73-006
68-01-0082	670/4-74-004
68-01-0094	670/2-74-017
68-01-0095	670/2-74-004
68-01-0098	670/2-75-057
68-01-0110	670/2-75-042
68-01-0115	670/2-74-091
68-01-0116	670/2-74-043
68-01-0120	670/2-73-031
68-01-0124	670/2-73-078
68-01-0133	670/2-74-053
68-01-0135	670/2-73-081
68-01-0139	670/2-73-069
68-01-0151	600/3-76-033
68-01-0162	600/2-75-034
68-01-0162	670/2-75-051
68-01-0162	670/2-75-052
68-01-0167	660/2-73-003
68-01-0171	660/2-73-004
68-01-0177	670/2-75-068
68-01-0190	660/3-75-016
68-01-0195	670/2-74-001
68-01-0197	600/2-75-004
68-01-0276	650/3-74-002
68-01-0279	650/2-73-002
68-01-0423	600/5-74-017
68-01-0426	600/5-74-009

PROJECT NO.	REPORT NO.
CONTRACTS	
68-01-0428	600/5-74-007
68-01-0438	600/2-74-004
68-01-0457	600/2-74-006
68-01-0465	670/2-75-047
68-01-0470	600/5-73-004
68-01-0483	600/2-74-002
68-01-0483	600/2-75-009
68-01-0550	650/2-74-068
68-01-0666	650/1-73-002
68-01-0703	600/5-74-004
68-01-0728	600/5-74-010
68-01-0729	600/5-73-003
68-01-0741	660/2-73-006a
68-01-0741	660/2-73-006b
68-01-0743	660/2-74-072
68-01-0743	660/2-74-073
68-01-0744	600/5-73-008a
68-01-0744	600/5-73-008b
68-01-0744	600/5-74-014
68-01-0748	600/3-76-008
68-01-0753	600/5-73-005
68-01-0759	600/4-73-001a
68-01-0759	600/4-73-001b
68-01-0759	600/4-74-001
68-01-0759	680/4-74-002
68-01-0759	680/4-74-003
68-01-0759	680/4-75-008
68-01-0763	670/2-74-002
68-01-0777	660/2-74-056
68-01-0782	660/3-74-019
68-01-0788	600/5-74-008
68-01-0887	660/2-74-013
68-01-0901	600/5-75-011
68-01-0904	660/3-74-022
68-01-1231	650/3-75-007
68-01-1325	600/2-75-022
68-01-1805	600/5-74-001
68-01-1818	600/5-74-006
68-01-1818	600/5-74-023
68-01-1832	670/4-74-003a
68-01-1832	670/4-74-003b
68-01-1837	600/5-74-005
68-01-1842	600/5-74-019
68-01-1845	600/5-75-006
68-01-1850	600/5-74-033
68-01-1859	600/5-74-032
68-01-1863	600/5-75-004

PROJECT NO.	REPORT NO.
CONTRACTS	
68-01-1870	670/2-74-052
68-01-1871	600/5-74-002
68-01-1871	600/5-74-016
68-01-1882	600/5-74-030
68-01-1888	600/5-74-018
68-01-1898	600/5-74-015
68-01-1916	600/5-76-001
68-01-2114	600/2-74-001
68-01-2203	600/5-74-025
68-01-2203	600/5-74-026
68-01-2221	600/2-75-011
68-01-2232	600/5-75-015
68-01-2234	600/2-76-016a
68-01-2234	600/2-76-016b
68-01-2250	600/5-75-007
68-01-2411	600/5-75-001
68-01-2442	600/4-75-001
68-01-2634	600/5-76-002
68-01-2637	600/5-74-028
68-01-2940	600/2-75-070
68-01-2940	600/2-76-084
68-01-2940	600/9-76-006
68-01-3118	600/2-76-085
68-02-0007	650/2-74-064
68-02-0010	650/4-74-037
68-02-0017	650/2-74-047
68-02-0018	650/2-73-047
68-02-0020	650/2-73-026
68-02-0022	650/2-73-015
68-02-0023	650/2-75-006
68-02-0025	650/2-74-085a
68-02-0054	650/2-73-027
68-02-0080	650/1-73-004
68-02-0083	650/1-75-001
68-02-0095	650/5-73-001
68-02-0202	600/2-76-061a
68-02-0204	600/2-75-016
68-02-0205	650/2-73-001
68-02-0206	650/2-73-042
68-02-0213	650/5-73-002
68-02-0214	650/4-74-014
68-02-0216	650/2-73-033a
68-02-0216	650/2-73-033b
68-02-0217	650/2-73-048a
68-02-0217	650/2-73-048b
68-02-0217	650/2-73-048c
68-02-0217	650/2-73-048d

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-0218	650/2-74-105
68-02-0221	650/2-75-052
68-02-0223	650/4-73-001
68-02-0224	600/2-76-003
68-02-0226	650/2-74-131
68-02-0227	650/2-74-066
68-02-0228	650/2-74-107
68-02-0230	650/2-74-026
68-02-0230	650/2-74-087
68-02-0246	650/2-74-054
68-02-0247	650/2-74-071a
68-02-0247	650/2-74-071b
68-02-0250	650/2-74-075
68-02-0251	600/2-75-069a
68-02-0251	600/2-76-088
68-02-0256	650/2-73-036
68-02-0264	650/2-73-005
68-02-0265	650/2-75-037
68-02-0268	650/2-75-009
68-02-0270	650/2-74-045
68-02-0272	650/4-74-003
68-02-0273	650/2-73-035
68-02-0273	650/2-74-102
68-02-0273	650/2-74-102a
68-02-0273	650/2-75-022
68-02-0277	650/2-73-004
68-02-0279	650/2-73-003
68-02-0281	650/4-75-018a
68-02-0281	650/4-75-018b
68-02-0284	650/2-74-074
68-02-0284	650/2-74-092
68-02-0285	650/2-74-093
68-02-0286	600/2-76-004
68-02-0286	600/2-76-071
68-02-0286	650/2-74-004
68-02-0287	650/3-74-004a
68-02-0293	650/2-73-041
68-02-0293	650/2-73-041a
68-02-0297	650/2-75-045
68-02-0300	650/2-73-039
68-02-0300	650/2-74-109
68-02-0307	650/2-73-043
68-02-0310	650/4-74-015
68-02-0329	650/1-73-003
68-02-0332	650/2-74-061
68-02-0335	650/4-74-012
68-02-0542	600/1-75-005
CONTRACTS	
68-02-0543	650/2-73-037
68-02-0544	650/2-73-016
68-02-0545	650/2-74-040
68-02-0546	650/2-74-029
68-02-0551	650/2-73-010
68-02-0553	650/4-73-003
68-02-0556	650/9-75-001a
68-02-0556	650/9-75-001b
68-02-0557	650/3-73-002
68-02-0561	650/2-73-025
68-02-0563	650/2-74-014
68-02-0564	650/2-73-050
68-02-0566	650/2-74-044
68-02-0570	650/2-73-040
68-02-0574	650/4-74-009
68-02-0575	650/2-74-094
68-02-0578	650/2-73-052
68-02-0579	650/2-74-016
68-02-0580	650/4-74-011
68-02-0580	650/4-74-040
68-02-0580	650/4-75-026
68-02-0581	650/2-74-060
68-02-0584	650/2-75-015
68-02-0585	650/2-73-032
68-02-0586	650/1-75-005
68-02-0587	650/2-73-030
68-02-0588	650/2-73-008
68-02-0590	650/2-74-039
68-02-0591	650/2-74-133
68-02-0592	650/2-75-013a
68-02-0595	650/1-74-003
68-02-0600	650/2-73-007
68-02-0603	650/2-74-031a
68-02-0603	650/2-74-031b
68-02-0605	650/2-75-027a
68-02-0605	650/2-75-027b
68-02-0605	650/2-75-027c
68-02-0609	650/2-75-051a
68-02-0622	650/2-73-028
68-02-0623	650/4-74-013
68-02-0623	650/4-74-021
68-02-0623	650/4-74-024
68-02-0623	650/4-74-025
68-02-0625	650/2-74-103
68-02-0626	600/4-76-014
68-02-0626	650/4-74-022
68-02-0626	650/4-74-026

CONTRACTS

PROJECT NO.	REPORT NO.
68-02-0626	650/4-74-028
68-02-0626	650/4-74-029
68-02-0626	650/4-74-033
68-02-0626	650/4-74-039
68-02-0626	650/4-75-003
68-02-0626	650/4-75-009
68-02-0628	650/2-74-023
68-02-0629	650/2-74-009a
68-02-0629	650/2-74-009b
68-02-0629	650/2-74-009c
68-02-0629	650/2-74-009d
68-02-0629	650/2-74-009e
68-02-0629	650/2-74-009f
68-02-0629	650/2-74-009g
68-02-0629	650/2-74-009h
68-02-0629	650/2-74-009i
68-02-0629	650/2-74-009j
68-02-0629	650/2-74-009k
68-02-0629	650/2-74-009l
68-02-0629	650/2-74-009m
68-02-0630	650/2-74-076
68-02-0634	650/2-74-002a
68-02-0634	650/2-74-002b
68-02-0635	600/2-76-039
68-02-0636	600/2-75-012
68-02-0636	650/2-75-020
68-02-0637	650/2-74-119a
68-02-0637	650/2-74-119b
68-02-0647	650/2-74-025
68-02-0647	650/2-74-025a
68-02-0648	650/2-75-001a
68-02-0648	650/2-75-001b
68-02-0650	600/2-75-037
68-02-0650	650/2-74-062
68-02-0650	650/2-74-062a
68-02-0652	650/4-74-020
68-02-0653	650/2-74-069
68-02-0654	650/4-74-017
68-02-0656	650/2-74-020
68-02-0657	650/2-74-006
68-02-0658	650/2-73-009
68-02-0660	650/2-75-008
68-02-0662	650/2-74-008a
68-02-0665	650/4-74-049
68-02-0680	650/4-74-010
68-02-0698	650/2-75-068
68-02-0699	650/4-75-005

CONTRACTS

PROJECT NO.	REPORT NO.
68-02-0713	650/1-74-013
68-02-0716	650/2-74-055
68-02-0742	650/2-74-089
68-02-0744	650/4-75-014
68-02-0745	650/4-74-042
68-02-0752	600/4-75-009
68-02-0757	650/2-74-046a
68-02-0757	650/2-74-046b
68-02-0760	650/4-74-051
68-02-0771	650/3-75-004
68-02-0778	650/2-74-056
68-02-0782	650/2-74-065
68-02-0788	650/4-74-052
68-02-0792	650/3-75-010
68-02-0798	650/4-74-036
68-02-0799	600/3-76-030
68-02-0800	650/4-74-044
68-02-0994	650/4-74-038
68-02-1006	600/4-76-013
68-02-1010	600/2-76-070
68-02-1010	650/2-74-037a
68-02-1011	650/2-74-019
68-02-1013	650/2-75-031
68-02-1015	650/4-74-007
68-02-1068	650/2-74-106
68-02-1074	600/2-76-086a
68-02-1074	650/2-74-078a
68-02-1075	650/2-75-059
68-02-1079	650/2-74-108
68-02-1081	600/3-76-011a
68-02-1081	600/3-76-011b
68-02-1081	600/3-76-011c
68-02-1081	600/3-76-016
68-02-1081	650/3-75-009
68-02-1082	600/2-75-018
68-02-1087	600/2-76-009
68-02-1092	650/2-75-061a
68-02-1093	650/2-74-058
68-02-1093	650/2-74-058a
68-02-1098	650/4-74-023
68-02-1098	650/4-75-001
68-02-1099	600/2-75-078
68-02-1145	650/1-74-009
68-02-1201	650/2-75-050
68-02-1205	600/1-76-010a
68-02-1206	650/4-75-008
68-02-1207	650/4-74-001

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-1208	650/2-75-041
68-02-1209	650/2-75-039
68-02-1210	600/1-75-004
68-02-1210	650/2-75-049
68-02-1217	650/3-75-002
68-02-1223	600/2-75-067
68-02-1224	650/2-75-069
68-02-1225	650/2-74-059
68-02-1226	600/1-76-014
68-02-1226	600/1-76-020
68-02-1227	600/2-75-024
68-02-1228	600/2-75-076
68-02-1228	650/2-74-121
68-02-1229	650/2-74-120
68-02-1230	650/2-75-056
68-02-1233	650/4-74-043
68-02-1234	650/4-74-005a
68-02-1234	650/4-74-005b
68-02-1234	650/4-74-005c
68-02-1234	650/4-74-005d
68-02-1234	650/4-74-005h
68-02-1234	650/4-74-005l
68-02-1234	650/4-74-005m
68-02-1234	650/4-74-005n
68-02-1235	650/4-74-050
68-02-1236	650/2-75-055
68-02-1238	650/4-74-006
68-02-1242	650/4-74-016
68-02-1243	600/1-76-021
68-02-1255	650/2-75-007
68-02-1266	650/1-75-004
68-02-1268	650/2-75-029
68-02-1274	600/1-76-019
68-02-1274	650/1-74-008
68-02-1275	600/2-75-048
68-02-1277	650/1-75-002
68-02-1279	650/2-75-054
68-02-1282	650/2-75-028
68-02-1287	600/1-76-018
68-02-1289	600/1-76-005
68-02-1292	650/2-75-053a
68-02-1292	650/2-75-053b
68-02-1297	600/4-76-007
68-02-1302	600/2-75-051
68-02-1303	600/2-75-015
68-02-1303	600/2-75-017
68-02-1303	650/2-74-079

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-1303	650/2-74-114
68-02-1303	650/2-74-124
68-02-1305	600/4-76-009
68-02-1306	650/2-74-085b
68-02-1306	650/2-74-086a
68-02-1306	650/2-74-086b
68-02-1308	600/2-75-056
68-02-1308	600/2-76-044a
68-02-1308	600/2-76-044b
68-02-1308	650/2-74-028
68-02-1308	650/2-74-072
68-02-1308	650/2-74-098
68-02-1308	650/2-74-098a
68-02-1308	650/2-74-116
68-02-1308	650/2-74-127
68-02-1308	650/2-74-130
68-02-1308	650/2-75-016
68-02-1308	650/2-75-017
68-02-1308	650/2-75-030
68-02-1308	650/2-75-033
68-02-1309	650/2-75-018
68-02-1310	600/4-75-016a
68-02-1310	600/4-75-016b
68-02-1310	650/4-74-035
68-02-1314	650/2-75-042
68-02-1316	600/2-75-054
68-02-1316	600/2-76-035
68-02-1316	600/2-76-046a
68-02-1316	600/2-76-046b
68-02-1316	600/2-76-055
68-02-1316	600/2-76-069
68-02-1316	650/2-74-036
68-02-1316	650/2-74-043
68-02-1316	650/2-74-083
68-02-1318	600/2-75-046
68-02-1318	600/2-76-037
68-02-1318	600/2-76-052
68-02-1318	650/2-74-091
68-02-1318	650/2-74-123
68-02-1319	600/2-75-042
68-02-1319	600/2-75-068
68-02-1319	600/2-76-049a
68-02-1319	600/2-76-049b
68-02-1319	600/2-76-051a
68-02-1319	600/2-76-051b
68-02-1319	600/2-76-051c
68-02-1319	600/2-76-051e

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-1319	600/2-76-051g
68-02-1319	600/2-76-064
68-02-1319	600/2-76-092
68-02-1319	650/2-74-033
68-02-1319	650/2-75-065
68-02-1320	600/2-75-045
68-02-1320	650/2-74-021
68-02-1320	650/2-74-041
68-02-1320	650/2-74-082
68-02-1320	650/2-74-117
68-02-1320	650/2-75-019a
68-02-1320	650/2-75-046
68-02-1321	600/2-76-013a
68-02-1321	600/2-76-013b
68-02-1321	650/2-74-101
68-02-1321	650/2-74-115
68-02-1321	650/2-74-122
68-02-1321	650/2-75-057a
68-02-1321	650/2-75-057b
68-02-1321	650/2-75-057c
68-02-1321	650/2-75-057d
68-02-1321	650/2-75-057e
68-02-1321	650/2-75-057f
68-02-1321	650/2-75-057g
68-02-1321	650/2-75-057h
68-02-1321	650/2-75-057i
68-02-1321	650/2-75-057j
68-02-1321	650/2-75-057k
68-02-1322	600/2-76-010
68-02-1323	600/2-75-066
68-02-1323	600/2-75-073
68-02-1323	600/2-76-002
68-02-1323	600/2-76-014
68-02-1323	600/2-76-015
68-02-1323	600/2-76-054
68-02-1323	600/2-76-056
68-02-1323	600/2-76-076
68-02-1323	650/2-74-052
68-02-1323	650/2-74-099
68-02-1323	650/2-74-100
68-02-1323	650/2-75-034
68-02-1323	650/2-75-038
68-02-1324	600/2-75-020
68-02-1324	600/2-76-001
68-02-1324	600/2-76-040
68-02-1324	600/2-76-041
68-02-1324	600/2-76-066

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-1324	600/2-76-067
68-02-1324	650/2-74-073
68-02-1324	650/2-75-044
68-02-1324	650/2-75-066
68-02-1325	600/2-76-087
68-02-1325	650/2-74-097
68-02-1325	650/2-74-118
68-02-1325	650/2-75-021
68-02-1328	600/2-75-021a
68-02-1328	650/2-74-112
68-02-1329	650/2-75-032a
68-02-1329	650/2-75-032b
68-02-1329	650/2-75-032c
68-02-1329	650/2-75-032d
68-02-1331	600/2-76-079
68-02-1339	650/2-74-067
68-02-1348	650/2-74-090
68-02-1352	650/2-74-030
68-02-1353	600/2-76-065
68-02-1353	650/2-74-088
68-02-1363	650/4-74-019a
68-02-1363	650/4-74-046
68-02-1363	650/4-75-011
68-02-1363	650/4-75-013
68-02-1364	600/2-75-014
68-02-1365	650/2-75-060
68-02-1367	650/2-73-005a
68-02-1367	650/2-73-005b
68-02-1398	600/2-76-073
68-02-1398	600/2-76-080
68-02-1398	600/2-76-081
68-02-1398	600/2-76-083
68-02-1401	600/2-76-047
68-02-1405	600/2-76-036a
68-02-1405	600/2-76-036b
68-02-1405	600/2-76-036c
68-02-1405	600/2-76-036d
68-02-1405	600/2-76-036e
68-02-1405	600/2-76-036f
68-02-1405	600/2-76-036g
68-02-1405	600/2-76-036h
68-02-1405	600/2-76-036i
68-02-1405	600/2-76-036j
68-02-1405	600/2-76-036k
68-02-1406	600/2-76-048a
68-02-1406	600/2-76-048b
68-02-1406	650/2-75-026a

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-1406	650/2-75-026b
68-02-1409	600/2-76-072
68-02-1412	600/2-76-093b
68-02-1436	650/2-75-035
68-02-1438	600/2-75-013a
68-02-1438	600/2-76-077a
68-02-1439	650/2-75-064
68-02-1480	650/2-74-129
68-02-1480	650/2-74-129a
68-02-1485	600/2-76-090
68-02-1487	650/2-75-024a
68-02-1496	650/2-75-058a
68-02-1660	600/2-76-059
68-02-1701	600/1-76-010b
68-02-1703	600/1-76-012
68-02-1714	600/3-76-018
68-02-1722	600/2-75-053
68-02-1723	600/1-76-001
68-02-1727	600/1-76-017
68-02-1728	600/4-76-008
68-02-1728	600/4-76-015
68-02-1731	600/2-76-034
68-02-1740	650/4-75-024a
68-02-1740	650/4-75-024b
68-02-1749	600/2-76-062
68-02-1752	650/2-75-062
68-02-1753	600/3-75-003a
68-02-1753	600/3-75-003b
68-02-1773	600/2-75-077
68-02-1792	600/2-75-052
68-02-1802	600/2-75-074
68-02-1808	650/2-75-040
68-02-1814	600/2-75-050
68-02-1816	600/2-76-042
68-02-1819	600/2-76-038
68-02-1831	600/2-76-057
68-02-1833	600/4-75-005a
68-02-1835	600/2-76-053
68-02-1851	650/2-75-005a
68-02-1851	650/2-75-005b
68-02-1874	600/2-76-032a
68-02-1874	600/2-76-032b
68-02-1874	600/2-76-032c
68-02-1882	600/2-76-012a
68-02-1882	600/2-76-012b
68-02-1944	600/1-76-009
68-02-1973	650/2-73-045

PROJECT NO.	REPORT NO.
CONTRACTS	
68-02-2012	650/2-73-044
68-02-2110	600/2-76-089a
68-02-2323	650/2-75-063
68-02-4191	600/2-76-008
68-03-0006	670/2-73-052
68-03-0032	670/2-73-014
68-03-0032	670/2-73-015
68-03-0032	670/2-73-016
68-03-0046	670/2-73-013
68-03-0047	670/5-74-003
68-03-0049	670/2-73-006
68-03-0050	670/2-73-066
68-03-0060	670/2-73-056
68-03-0089	670/2-73-053A
68-03-0089	670/2-73-053A-P
68-03-0089	670/2-73-053B
68-03-0089	670/2-73-053C
68-03-0089	670/2-73-053D
68-03-0089	670/2-73-053E
68-03-0089	670/2-73-053F
68-03-0089	670/2-73-053G
68-03-0089	670/2-73-053H
68-03-0089	670/2-73-053I
68-03-0089	670/2-73-053J
68-03-0089	670/2-73-053K
68-03-0089	670/2-73-053L
68-03-0089	670/2-73-053M
68-03-0089	670/2-73-053N
68-03-0089	670/2-73-053O
68-03-0089	670/2-73-053P
68-03-0095	670/2-74-019
68-03-0095	670/2-74-020
68-03-0095	670/2-74-021
68-03-0102	670/2-75-045
68-03-0123	670/2-75-024
68-03-0126	670/1-75-001
68-03-0128	670/2-75-023
68-03-0138	670/2-74-078
68-03-0140	670/2-75-049
68-03-0145	670/2-75-014
68-03-0148	670/2-75-038
68-03-0152	600/2-75-035
68-03-0154	670/2-74-033
68-03-0154	670/2-74-045
68-03-0154	670/2-74-086
68-03-0156	670/2-73-086
68-03-0179	670/2-74-040

PROJECT NO.	REPORT NO.
CONTRACTS	
68-03-0183	670/2-74-037
68-03-0183	670/2-74-038
68-03-0183	670/2-74-065
68-03-0183	670/2-74-066
68-03-0183	670/2-74-068
68-03-0193	670/5-75-001
68-03-0203	670/2-75-012
68-03-0220	670/2-74-056
68-03-0221	670/2-75-007
68-03-0228	670/2-75-004
68-03-0233	660/2-73-026
68-03-0244	670/2-74-095a
68-03-0244	670/2-74-095b
68-03-0260	670/2-74-082
68-03-0262	670/2-74-087
68-03-0262	670/2-75-067
68-03-0268	670/2-74-003
68-03-0272	600/2-75-062
68-03-0272	670/2-75-011
68-03-0283	670/2-74-039
68-03-0286	600/2-75-041
68-03-0288	660/3-75-024
68-03-0298	660/3-75-018
68-03-0327	670/2-75-066
68-03-0334	600/2-75-038
68-03-0409	600/2-75-065
68-03-0409	600/2-76-006
68-03-0426	600/2-75-027
68-03-0430	600/2-76-050
68-03-0439	660/3-75-037
68-03-0470	600/2-75-040
68-03-0499	600/2-76-058
68-03-2052	600/3-75-011
68-03-2053	600/2-76-078
68-03-2136	660/2-75-011
68-03-2176	600/3-76-034
GRANTS	
AP 01186	650/3-74-003
AP-01269-02	650/2-74-005
EC-00281	670/9-73-035
EC-0030-03	670/2-73-089A
EC-0030-03	670/2-73-089B
EC-00600	670/5-74-002
EP-00242	670/2-74-027
EP-00248	670/2-73-023
EP-00250	670/2-73-063
EP-00254	670/2-73-085
GRANTS	
EP-00257	670/2-73-065
EP-00259	670/2-73-072
EP-00261	670/2-73-048
EP-00262-02	670/2-73-009
EP-00265	670/2-73-083
EP-00266	670/2-73-039
EP-00268	670/2-73-061
EP-00274	670/2-73-090
EP-00276-04	670/2-73-005
EP-00279	670/2-73-011
EP-00283	670/2-73-025
EP-00302	670/2-73-051
EP-00304	670/2-73-087
EP-00316	670/2-73-041
EP-00319	670/2-73-034
EP-00328	670/2-73-095
EP-00329	660/2-73-038
EP-00329	670/2-73-038
EP-00329	670/2-75-053
EP-00362	670/2-73-030
EP-00386	670/2-73-049
EP-00393	670/2-73-021
EP-00458	670/5-73-020
EP-00458	670/5-74-001
EP-00500-01	670/2-74-014
EP-00829-01	660/2-74-081
EP-01030	670/5-74-006
P5-01-1805	600/1-75-002
UI-00509	670/2-73-057
UI-00557	670/2-73-017
WP 01351-01	660/3-74-014
WP-01322-02	670/2-73-027
WPD 184-01-67	660/2-74-030
WPD-112-01-66	670/2-75-054
WPRD 121-01-68	670/2-73-024
WPRD 139-01-68	600/2-75-060
WPRD 16-01-67	670/2-75-037
WPRD 185-01-68	660/2-73-015
WPRD 23-01-68	670/2-73-098
WPRD 242-01	670/2-73-092
WPRD 247-01	670/2-74-061
WPRD 263-01-68	600/2-76-027
WPRD 263-01-68	600/2-76-028
WPRD 263-01-68	600/2-76-029
WPRD 263-01-68	600/2-76-030
WPRD 263-01-68	600/2-76-031
WPRD 3-01-68	660/2-74-035

PROJECT NO.	REPORT NO.
GRANTS	
WPRD 30-01-0067	670/2-73-096
WPRD 4-01-67	670/2-74-077
WPRD 4-01-67	670/2-75-027
11010 DYO	670/2-75-060
11010 ELP	670/2-73-024
11010 ENK	670/2-73-103
11010 EZQ	670/2-73-098
11010 FAC	600/2-75-049
11010 FAC	600/3-76-003
11010 FLQ	670/2-73-050
11010 FYM	670/2-73-033
11010 GWI	600/2-73-004
11020 FAM	670/2-74-079
11020 FAN	670/2-73-071
11020 FAU	600/2-75-071
11020 FAX	670/2-75-020
11022 ELK	670/2-74-022
11022 FLV	670/2-75-035
11023 EKC	670/2-75-019
11023 FAR	670/2-75-010
11023 FAS	670/2-73-067
11024 EVF	600/2-73-002
11030 HJP	670/2-74-096
11060 DRO	660/2-73-038
11060 FRQ	600/2-75-030
11060 GVT	670/2-74-062
12010 DNF	660/2-74-050
12010 DOT	670/2-74-059
12010 DRH	660/2-73-033
12010 DSA	670/2-74-042
12010 FNM	660/2-73-032
12010 FXD	670/2-75-018
12010 GUG	600/2-75-028
12020 ERM	670/2-74-044
12040 DEH	660/2-74-069
12040 DRY	660/2-74-008
12040 EJU	660/2-75-004
12040 GQD	660/2-73-028
12040 HDU	660/2-74-086
12050 GTR	660/2-75-020
12060 DFF	660/2-74-027
12060 DQV	660/2-73-015
12060 EGV	660/2-74-031
12060 EIG	660/2-74-088
12060 EKQ	660/2-74-012
12060 ESC	660/2-74-093
12060 ESY	660/2-74-035

PROJECT NO.	REPORT NO.
GRANTS	
12060 FAK	660/2-74-028
12060 FLL	660/2-74-014
12060 FRW	660/2-73-020
12060 FRW	660/2-73-021
12060 FYG	660/2-74-060
12060 HCW	660/2-74-059
12060 HFY	660/2-74-092
12060 HNG	660/2-74-046
12060 HPC	660/2-75-002
12070 HEK	660/2-73-023
12080 GCH	660/2-74-040
12090 HLO	660/2-74-039
12110 GLP	660/2-73-018
12120 FYV	660/2-73-037
12120 GLE	660/2-74-007
12120 HMZ	660/2-75-006
12130 DBF	660/2-73-010
12130 EKK	660/2-74-020
12130 HFX	660/2-73-036
12130 HRA	660/2-74-055
13020 DTV	660/2-74-005
13020 DWH	660/2-74-033
13020 EBL	660/2-74-032
13040 DFN	660/2-74-030
13040 ERR	660/2-74-009
13040 EVM	660/2-74-047
13040 FYK	660/2-74-057
14010 EFJ	670/2-73-092
14010 EFL	670/2-73-054
14010 EFN	670/2-73-093
14010 HQC	670/2-74-009
14020 EHW	660/2-74-019
14020 FVW	660/2-74-037
14040 FVD	660/2-74-018
14040 FZC	670/2-73-080
15010 PBK	670/2-73-088
15020 HKQ	670/2-74-063
15030 FMZ	660/2-73-035
15030 HIX	660/2-74-043
15080 EJQ	670/2-73-099
15080 HET	670/2-73-068
16010 DBU	660/3-74-034
16010 DCK	660/3-73-002
16010 DFI	660/3-73-001
16010 DHN	660/3-73-003
16010 EDJ	660/3-73-006
16010 EJH	660/3-73-015

PROJECT NO.	REPORT NO.
GRANTS	
16010 ELF	660/3-74-017
16010 EQQ	660/2-74-010
16020 DHD	670/2-73-079
16020 EDG	660/2-74-021
16020 EGG	660/3-74-026
16020 GIY	670/4-74-004
16030 ELZ	660/2-73-027
16040 FRL	660/2-73-008
16050 DDK	660/3-73-009
16050 DIL	660/2-74-082
16050 DIL	660/2-74-083
16050 DIL	660/3-73-011
16050 DXM	660/3-73-008
16050 ESP	660/3-74-002
16050 GQQ	660/3-73-025
16070 DEP	660/3-74-004a
16070 DEP	660/3-74-004b
16070 DGO	660/3-75-025
16070 DGY	660/3-73-010
16070 EKZ	660/3-73-005
16070 FBY	660/2-73-029
16080 DPC	600/2-76-005a
16080 DPC	600/2-76-005b
16080 DYJ	660/2-74-016
16080 FBH	660/2-73-022
16080 FWE	600/2-74-003
16080 FYW	660/2-73-025a
16080 FYW	660/2-73-025b
16100 FWQ	660/3-73-018
16100 PAK	660/2-73-017
16110 GEW	600/5-74-013
16130 FDQ	660/2-73-012
16130 GNK	660/2-73-011
16130 GSD	660/2-73-003
16130 HKK	660/2-73-004
17010 EBM	670/2-73-027
17020 EPF	670/2-74-012
17030 DMA	670/2-73-074
17030 DUW	670/2-74-047
17030 EBH	600/2-75-039
17040 DSR	670/2-74-077
17050 DBI	670/2-74-018
17050 DFJ	600/2-75-032
17050 EEY	670/2-74-048
17060 DNU	670/2-73-029
17060 EYZ	670/2-73-082
17070 HDA	670/2-74-004

PROJECT NO.	REPORT NO.
GRANTS	
17080 FSF	670/2-73-064
17080 GCI	600/2-76-022
17080 HHV	670/2-74-080
18050 DET	660/3-74-003
18050 DFQ	660/3-73-016
18050 DIJ	660/3-73-020
18050 DMB	660/3-73-017
18050 DPL	660/3-73-019
18050 ELT	660/3-74-006
18050 FLS	660/3-73-004
18080 DFU	660/3-74-014
18080 FBW	660/3-74-031
800042	650/2-75-002
800055	660/2-73-032
800055	670/2-73-032
800055	670/2-74-083
800055	670/2-74-084
800150	650/2-74-034
800171	600/3-76-021
800209	650/3-75-005
800230	600/1-76-015
800250	660/2-74-091
800261	660/2-73-019
800278	660/2-74-052
800278	660/2-74-084
800294	660/2-75-014
800312	660/2-75-017
800316	650/2-74-110
800351	670/2-74-032
800354	600/2-75-029
800356	670/2-75-039
800364	660/2-75-009
800365	660/3-75-013
800369	660/3-73-009
800371	600/3-76-022
800372	600/3-76-023
800373	660/3-74-016
800384	600/1-76-008
800397	650/4-74-032
800397	650/4-74-045a
800397	650/4-74-045b
800400	660/2-74-005
800401	660/2-74-033
800426	600/2-76-019
800426	660/2-74-049
800432	670/2-75-033a
800432	670/2-75-033b

PROJECT NO.	REPORT NO.
GRANTS	
800432	670/2-75-033c
800432	670/2-75-033d
800435	660/3-75-014
800504	660/3-75-027
800510	660/3-73-022
800536	660/3-75-021
800602	670/2-74-030
800605	660/3-75-004
800608	660/3-75-022
800609	660/3-75-006
800610	660/3-75-005
800613	660/2-73-012
800613	660/2-74-085
800613	660/3-75-002
800613	660/3-75-038
800650	670/2-74-013
800650	670/2-75-056
800652	670/2-74-015
800662	600/4-75-004
800662	650/4-75-015
800674	670/5-74-004
800677	650/3-75-003
800678	660/2-74-003
800680	660/2-73-024
800685	670/2-73-060
800688	670/2-75-031
800700	600/3-76-009
800704	660/3-75-017
800707	670/2-73-022
800731	660/2-75-008
800736	660/3-74-025
800745	670/2-74-070
800746	660/2-74-046
800747	660/2-74-025
800766	660/2-75-021
800766	670/2-74-016
800767	660/2-74-063
800769	670/2-74-075
800778	660/3-74-028
800781	600/2-75-023
800786	670/2-75-040
800798	600/2-75-019
800842	650/2-74-011
800845	650/3-75-006
800853	660/2-74-029
800854	660/2-74-071
800857	600/2-74-009a
800857	600/2-74-009b
800857	600/2-74-009c
800866	650/2-73-011
800869	650/2-75-067
800897	600/2-75-063
800904	660/2-74-061
800909	660/2-74-004
800916	650/3-75-011
800921	660/2-74-048
800923	660/2-75-013
800929	600/2-76-060
800935	660/2-74-074
800938	670/2-75-030
800941	670/2-75-046
800943	660/2-74-053
800949	650/3-75-008
800950	650/2-74-095
800966	670/2-74-049
800984	600/3-76-024
800989	660/3-74-027
800991	660/2-74-079
800994	660/3-74-033
800997	660/2-73-002
801000	600/5-74-022
801003	660/3-75-003
801029	660/2-73-027
801035-01	600/3-76-036
801036	660/3-74-007
801039	660/3-73-018
801040	660/2-75-005
801041	600/2-75-072
801062	660/3-74-029
801065	660/2-74-090
801102	600/4-76-002
801113	650/4-75-012
801120	650/4-74-004
801124-03	660/3-75-026
801128-02-2	600/3-76-007
801136	650/3-74-006
801159	670/2-74-057
801174	650/3-74-011
801178	600/3-76-004
801192	600/2-75-055
801207	660/2-73-030
801226	600/5-74-027
801234	600/5-74-011
801236	670/2-75-006

GRANTS

PROJECT NO.	REPORT NO.
801282	670/2-74-076a
801282	670/2-74-076b
801289	670/2-74-035a
801289	670/2-74-035b
801289	670/2-74-036a
801289	670/2-74-036b
801303	670/2-73-091
801321	650/2-73-020
801336	650/2-75-036
801340	650/3-74-007
801342	670/2-74-031
801343	660/3-74-020
801349	670/2-75-016
801361	660/3-73-023
801362	660/3-73-024
801363	660/3-75-033
801374	600/5-73-016
801376	600/5-73-015
801381	660/3-75-030
801393	650/1-74-010
801397	600/2-75-043
801399-02	600/2-76-020
801400	660/2-75-007
801411	600/5-74-020
801417	660/2-74-077
801419	600/5-75-003
801432	660/2-75-001
801446	650/2-74-007
801454	660/2-75-003
801454-01	660/2-74-024
801470	650/1-74-012
801473	600/5-73-012a
801473	600/5-73-012b
801473	600/5-73-012c
801473	600/5-73-012d
801473	600/5-73-012e
801481	600/5-74-029
801484	660/2-74-006
801490	650/2-73-014
801500	600/5-74-024
801521	600/5-73-007
801522	600/5-73-011
801577	660/2-74-094
801603	650/2-74-063
801615	650/2-74-027
801622	670/2-75-034
801628	600/2-74-005

GRANTS

PROJECT NO.	REPORT NO.
801630	670/2-74-094
801633	670/2-75-026a
801633	670/2-75-026b
801647	660/2-74-034
801650	650/1-74-011
801658	670/2-73-043
801662	660/2-74-064
801666	660/2-74-068
801673	600/5-75-010
801677	670/2-74-024A
801678	670/2-74-024B
801684	660/2-74-075
801799	670/2-75-061
801799	670/2-75-062
801799	670/2-75-063
801799	670/2-75-064
801800	600/1-76-003
801830	670/2-74-073
801835	660/2-74-054
801837	600/1-76-004
801867	660/2-75-027
801870	670/5-74-007
801870	670/5-74-008
801870	670/5-74-009
801872	670/2-75-043
801876	660/2-74-044
801944	670/2-75-032
801945	650/4-74-041
802003	600/2-75-031
802005	650/1-74-002
802009-01	660/2-74-023
802022	600/1-76-002
802032	660/2-74-011
802043	650/1-75-003
802084	660/2-75-028
802111	600/2-76-063
802113	670/2-75-055
802168	660/2-75-026
802174	660/2-75-019
802204	600/2-75-075
802205	660/2-75-012
802219	670/2-74-026
802219	670/2-75-022
802254	670/2-73-104
802254	670/2-74-008
802269	650/2-74-080
802270	650/2-74-051

PROJECT NO.	REPORT NO.
GRANTS	
802291	650/2-74-048
802309	600/2-76-082
802310	600/2-75-007
802348	660/3-75-015
802359	600/3-76-020
802366	650/2-75-012
802396	600/2-76-021
802400	670/2-75-021
802402	650/2-74-032
802411	670/2-75-017
802419-01	650/2-74-096
802423	600/5-75-008
802424	600/2-75-025
802441	600/5-73-009
802443	600/5-75-005
802443	600/5-75-009
802444	600/5-74-021
802475	670/2-74-054
802495	670/4-74-005
802499-01	650/2-75-023
802575	600/5-75-017
802586	660/2-75-016
802614	670/2-74-023
802621	670/2-75-048
802633	600/3-76-027
802637	670/2-75-015
802647	600/3-75-005
802684	600/2-76-045
802716	670/2-75-041
802726	650/2-75-043
802753	600/2-76-017
802781	600/2-75-033
802836	600/5-75-018
802853-01-0	600/2-76-024
802926	600/2-74-008
802966-01	600/3-76-012
802980-01	660/4-75-002
803006-01-1	600/4-76-005
803021	660/2-75-010
803026	660/2-75-025
803046-01	600/2-75-005
803049-01	600/5-75-016
803055-01-0	600/2-75-058
803056	600/5-75-012
803063	670/2-75-044
803063	670/2-75-059
803063-01	670/2-75-003

PROJECT NO.	REPORT NO.
GRANTS	
803069	670/2-75-065
803107-01	600/9-75-006
803111	670/2-75-058
803116-01-0	600/2-76-043
803226-01	670/2-75-029
803294	670/9-75-004
803546	600/9-75-007
803556-01	600/2-75-059
803663	600/9-76-004
803729	600/9-75-005
820529-01	600/3-75-007
INTER-AGENCY	
IAG D4-F451	660/2-75-018
IAG D4-0446	660/2-75-015
IAG D4-0528	600/2-76-007
IAG D4-509	600/1-76-006
IAG 40-191-69	600/2-76-025
IAG-D4-F399	600/2-75-064
IAG-D4-0040	600/2-76-026
IAG-D4-0344	600/4-75-002
IAG-D4-0377	650/2-75-048
IAG-D4-0439	600/1-76-016
IAG-D4-0454	650/2-75-011
IAG-D4-0501	600/2-76-075
IAG-D5-0416	600/3-76-031
IAG-D5-0416	600/3-76-032
IAG-P5-0685	600/2-76-091
IAG-0153(D)	600/3-75-013
IAG-069	600/3-76-010
IAG-097(D)	650/2-75-014
IAG-133-D	600/2-76-068a
IAG-133-D	600/2-76-068b
IAG-134(D)	600/2-75-006
IAG-141(D)	660/3-75-011
IAG-148	600/5-75-013
IAG-148(D)	600/5-75-002
IAG-152(D)	660/3-75-010
IAG-323	650/3-74-005
IAG0020(D)	650/2-74-038
IAG0077(D)	650/2-74-113
IAG0085(D)	650/2-73-006
IAG0134(D)	650/2-73-051
IAG0139(D)	650/2-74-070
IAG0149(D)	650/2-74-104
IAG0177(D)	650/2-73-034
IAG0199(D)	650/2-74-057
IAG0215	650/2-74-125

PROJECT NO.	REPORT NO.
INTER-AGENCY	
IAG085(D)	650/2-75-004
IAG31990A	650/2-74-049a
IAG4H374(D)	600/5-74-031
IAG40377(D)	650/4-74-030
PL-480:5-533-3	600/2-76-074
TV-30541A	650/2-73-019a
TV-30541A	650/2-73-019b
TV-30541A	650/2-73-019c